



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

THE
IRISH LINEN TRADE
HAND BOOK
AND
DIRECTORY

Econ 7725.16

Harvard College
Library



FROM THE BEQUEST OF
SUSAN GREENE DEXTER

W.W.CLELAND

20.61 VICTORIA ST

BELFAST.

VI

2000

THE IRISH
LINEN TRADE HANDBOOK AND DIRECTORY.

THE IRISH
LINEN TRADE HAND-BOOK
AND
DIRECTORY.

By F. W. SMITH,
SECRETARY TO THE LINEN TRADE COMMITTEE,



BELFAST:
W. H. GREER, No. 43, DONEGALL PLACE.

1876.

Econ 7725.16
✓

HARVARD COLLEGE LIBRARY
DEXTER FUND
Dec 5, 1925 ✓

ENTERED AT STATIONERS' HALL.

BELFAST:
PRINTED AT "THE NORTHERN WHIG" OFFICE.

TO
THE PRESIDENT AND COUNCIL
OF
The Belfast Chamber of Commerce

THIS LITTLE WORK
ON
THE IRISH LINEN TRADE
IS

(BY PERMISSION)

RESPECTFULLY DEDICATED

BY
THE AUTHOR

P R E F A C E.

THIS little work, which does not pretend to do more than give an outline of the origin and progress of the Linen Manufacture, particularly in connection with the Irish branch, it is hoped may prove useful, and repay the labour of perusal.

I am aware that other and abler pens have already dealt with the subject; but there are some matters referred to in this work which have not been previously touched upon, and, as furnishing a historic epitome of our staple industry, carried down to the present date, this will be found a handy book for reference.

In the preparation of the work—which occupied a considerable time—I was indebted to several friends for the use of books of reference, and for information on many points; and, for his kindness in this respect, my acknowledgments are especially due to the author of “Ireland and her Staple Manufactures.”

To a considerable number of our local Manufacturers and Merchants I feel indebted for the encouragement I received from the time I commenced the work, and I trust the result of my labours may not fall very far short of their expectations.

In a future edition I shall have a better opportunity of rendering the Directory a more complete guide to the trade than it was possible to make it in the present one. I feel much obliged to several correspondents in various places for furnishing information to enable me to compile this section.

I have omitted referring to the Legislative control of Factories, and also to some other matters which would have possessed interest, but these I hope to deal with on a future occasion.

This work has been published at my own risk, and, it is but right to add, that for the matter itself I am also solely responsible.

F. W. S.

BELFAST, *February 1, 1876.*

CONTENTS.

CHAPTER I.

Manufacture of Linen in Ancient Times.

Manufactures in Patriarchal times—References thereto in the Old Testament—Growth of Flax in Egypt—Spinning and Weaving in that country—Researches of travellers in ancient and modern times—Catacombs at Thebes—Mummy cloth—Process of linen manufacture described by Pliny—Commerce of Egypt with surrounding nations—The Phœnician cities, and their respective trades, &c.—Enterprise of these people—Decline of the manufacture in ancient Egypt—Description of the operations carried on, and of the cloth made, &c.,

I

CHAPTER II.

Historical Sketch of Flax Spinning and Linen Manufacturing in Ireland, from the earliest period.

Traditional accounts on this subject—Colonisation of Country—Phœnicians and other early settlers—Ancient laws—Mission of St. Patrick—Manners and Customs—References to spinning and weaving in Brehon laws—Dyeing of cloths—Lectures by Professor O'Curry on Dress and Ornaments of ancient Irish—Embroidery in olden times, &c.,

12

CHAPTER III.

Position of the Trade from the Fifth to the Seventeenth Century.

Textile Manufactures in England at Roman Conquest—Same on the Continent—Long period of obscurity respecting Irish manufactures—Conquest of Ireland in 1172—Earliest record of exportation of Irish manufactures—Woollen trade in France and Belgium—Manufacture of Cambric cloth—Woollen Manufactures in Ireland—Unimproved condition of Ireland for several centuries—Changes effected in reign of James I.—Dress of various classes at this time, &c.—Lord Strafford's administration—Efforts made to improve growth of Flax—Spinning of yarn, and manufacture of linen cloth—Prejudice against changes—Compact between Parliaments of England and Ireland respecting linen and woollen manufactures—Petitions to William III. by English House of Commons—The King's reply—Taxes imposed on woollen manufactures, and consequent destruction of the trade—Revocation of Edict of Nantes—The Huguenot settlement in Ireland—Colony at Lisburn—Crommelin's report on the linen trade—Encouragement of the trade by English Parliament—Appointment of Board of Trustees—Names of Ulster representatives,

21

CHAPTER IV.

From the formation of the Irish Linen Trade Board to the
Legislative Union with Great Britain.

	PAGE
Organisation of Linen Board in Dublin—Steps taken to improve cultivation of Flax— Also of yarn and cloth—Regulations respecting sealing of white linens— Improvement of the trade in 1741—Protection of same—Cambric factory at Dundalk—Sealing of brown linen—Opposition on part of the weavers—De- scription of the manufacture carried on in 1776 at Armagh, Lurgan, Warings- town, &c.—Sketch of Belfast at this date—Improvement of linen manufac- tures on Continent, and competition with Irish trade—Removal of commercial restrictions, and position of trade immediately after—Proceedings of Linen Board—Applications for grants of money, &c.—Punishment of sealmasters, &c.—Rebellion of '98—Union with Great Britain, &c., - - - -	38

CHAPTER V.

From the Legislative Union with Great Britain—covering
the period of the Dissolution of the Irish Linen Trade
Board—to end of 1840.

Invention of M. Jacquard—Bounties for saving of flaxseed—Also for erection of spindles—Notice of those earliest set up—Statistics of Drogheda trade in 1808-1809—Report of Audit Commissioners on transactions of Linen Board— Increase of spindles—Tour of Secretary of Board through Ulster in 1816— Description of the country markets at this period—Hand spinning in Con- naught—Value of goods sold at several markets throughout province of Ulster— Particulars of the various goods made—Tour of Secretary in 1821—Ballymena market at this date—General return of value of linen goods sold in Ireland this year—Introduction of wet spinning system—Steps taken by the Govern- ment to reduce Parliamentary grant—Dissolution of the Linen Board—Progress of wet spinning—York Street mill—State of trade down to end of 1840, - -	53
---	----

CHAPTER VI.

From the formation of the Flax Improvement Society until
its Dissolution.

Organisation of an Association to promote the cultivation of Flax—Free trade policy adopted by the trade—Deputation from Flax Society to H.M. the Queen— Royal patronage obtained—Famine years—Position of the trade during this period, and general condition of the country—Recovery in 1848-49—Visit of the Queen to Belfast—Exhibition of flax products at Linen Hall—Report of Factory Commissioners 1850—Flax spinning mills in United Kingdom at this date—Great Exhibition of 1851—Irish linen fabrics, and report of jury thereon— Introduction of power-loom weaving—Dublin Exhibition of 1853—List of exhibitors of Irish linen manufactures—United States tariff on linens, and steps taken to obtain a remission of these—Russian war, its effects on the trade—Paris Exhibition of 1855—Report of Belfast deputation on linen machinery and manufactures—Reports of Royal Flax Society—Return of flax spinning mills and power-loom factories in 1859—Dissolution of Flax Society, - -	77
--	----

CHAPTER VII.

From the formation of the Indian Flax Company in 1859
to present year.

PAGE.

Cultivation of Flax in India—Formation of a company in Belfast—Reports from seat of operations—International Exhibition in London in 1862—List of Irish exhibitors of linen goods—Further reports from India respecting progress of flax cultivation—Civil war in America—Its effect on the linen trade—Progress of Indian Flax Company—Returns of flax mills and factories in 1864—Exhibition in Dublin—List of exhibitors of linen goods—Returns respecting mills in 1866—Suitability of climate and soil of Ireland for growing flax—Prosperous condition of the linen trade at this period—Formation of Flax Extension Association—Paris Exhibition of 1867—Report on linen manufactures, home and foreign—Medals obtained by Irish firms—Depression in 1867 and following years—Returns of mills and factories in 1868—Dissolution of Indian Flax Company—Franco-German war—Its effect upon the trade—Recovery of trade in 1871—Prosperity during that year and the following—Strikes in various parts of the country—Vienna Exhibition—Names of Irish firms who obtained medals—State of trade in 1874 and 1875—Exhibition in Philadelphia in 1876—Names of Irish firms who purpose sending goods to this Exhibition, &c.	101
---	-----

APPENDIX I.

An account of linen cloth (plain) and linen yarn exported from Ireland between 1728 and 1821	147
Return of linen yarns and linen manufactures exported from the United Kingdom from 1831 to 1875	148

APPENDIX II.

Parliamentary report on factories for the spinning and weaving of textile fabrics abroad—Belgium—Prussia—Austria—Wurtemberg—Saxony—Switzerland—Netherlands—Province of North Brabant—Sweden—Russia—United States of America	149
---	-----

APPENDIX III.

Rates of import duties levied by foreign countries on the linen manufactures of the United Kingdom, compiled from returns presented to Parliament in 1869	165
---	-----

DIRECTORY OF THE IRISH LINEN TRADE	171
------------------------------------	-----

NAMES AND ADDRESSES OF SOME CONTINENTAL FIRMS	199
---	-----

ADVERTISEMENT S.

THE IRISH LINEN TRADE HAND BOOK.

CHAPTER I.

Manufacture of Linen in Ancient Times.

THE cultivation of the flax plant and manufacture of linen cloth must have been carried on in times of the most remote antiquity. In fact, so far as investigators have pursued their researches there can hardly be a doubt that the art was practised anterior to the deluge; as the incidental circumstances regarding the mode of life and habits of Eastern nations, referred to in the Book of Genesis, indirectly tell us that the people of these early days had some knowledge of the manufacture of material for clothing and other purposes. Animal fibres, such as wool and hair, we are told, were originally used in those early periods of human history, which succeeded the more primitive form of clothing—the skins of animals—which to this day form the usual material for such rude garments as are worn in savage life. After manufactures of wool and hair, the discovery of fibrous materials, in those plants indigenous to the soil, would engage attention, and from that most ancient of historical records—the Bible—we find ample evidence of the extensive consumption of linen in patriarchal times.

Some of the most studious men of later times entertained strong opinions on the question. The late Dr. Guthrie, one of the most eloquent of modern divines, in alluding to Jabal, said “he felt pretty certain that the founder of tent making must have had coarse cloth of some description as coverings for his work.” Jabal lived long before Noah laid the timbers of his great ship, and as fibrous plants of all descriptions abounded in the land occupied

by Adam's more immediate descendants, there can be little doubt that he soon found out the value of such material for the make of coarse canvas. If Cain was able to design and build a city we do not see why Jabal should not have exhibited equal ingenuity in the manipulation and manufacture of hemp. The article produced was probably the roughest of textiles, still it would have been a great improvement on the sun-tanned hides.

Granting, however, that manufactures in their rudest state were known thus early, it is quite certain that until the chosen people arrived at Palestine they had made but little way as producers of linen. Egypt was the cradle of the textile arts—Joseph's sojourn in the land of the Pharaohs led to the Israelites making that country their home, and ultimately to their captivity; and there it was that the sons of Jacob were taught in some of the higher branches of the trade. Still they never equalled their taskmasters in either the fine arts or manufactures, and for more than seven hundred years after the Israelites left Egypt they were in the habit of sending buyers to that country to purchase cloth and yarn.

To trace through Bible history the various references to this important textile would doubtless prove interesting, but we can only glance at some of the more remarkable ones, and these may form the ground work of a closer investigation, in which those desirous of tracing the records of this ancient art may wish to engage.

The first allusion to the flax plant occurs in connection with the records of the plagues of Egypt—where it is stated that “the flax and the barley were smitten; for the barley was in the ear, and the flax was balled.” In the Book of Job, that patriarch compares his life to “a weaver's shuttle,” and in Proverbs the virtuous woman is spoken of as one that “seeketh wool and flax, and worketh willingly with her hands,” and as “laying her hands to the spindle and her hands hold the distaff. . . . She maketh fine linen and selleth it, and delivereth girdles unto the merchant.” In many other places reference is made to the process of weaving.

During their captivity the children of Israel learned the art of spinning flax and weaving it into cloth, and in the Tabernacle in the wilderness, and afterwards in the Temple services, the use of linen garments was prescribed for the Priests, as well for ordinary as for special seasons. The outer covering of the Tabernacle was formed of a plain hanging of fine twined linen, which, according to Josephus, seemed to be wrought in an open or net-work texture, so as to permit the people without to see the interior. The veil of the Holy of Holies was also of linen, embroidered with many designs of the most beautiful flowers, and

interwoven with various ornamental figures, except the forms of animals, which was doubtless with a view to avoid all temptation to idolatrous worship.

From other books of the Old Testament, in which reference is made to the habits and customs of Eastern nations, it would appear that in those early times, Egypt, the ancient emporium of this textile, held the foremost rank among the nations. Its linen yarn was purchased by King Solomon, and Ezekiel speaks of the embroidered linen from Egypt; whilst artificers of the highest skill were brought from that country to Jerusalem, for the purpose of working the most costly and beautiful designs for the adornment of the Temple.

Besides the Israelites, the Babylonians and other Orientals were famed for their textile products, but none ever rose to the rank and importance maintained by the people of Egypt. In the book of Esther, we find a description of some of these in the palace of King Ahasuerus, "where were white, green, and blue hangings, fastened with cords of fine linen and purple, to silver rings, and pillars of marble;" whilst Mordecai is described as being clad "in blue and white, with a great crown of gold, and with a garment of fine linen and purple." In the New Testament Scriptures as well as in the Old, many allusions are made to the article linen, and it is also referred to as typical of spotlessness and purity. Heathen and idolatrous nations, in their religious ceremonies, used this material as the most suitable for clothing and decorative purposes, as well as being a cleaner and purer article than woollen garments.

That the manufacture of linen owes its development to ancient Egypt is beyond dispute, and to its people, who were skilled in many arts, we, in modern times, stand indebted to an extent of which little estimate has yet been taken. The Egyptians derived many advantages from their soil and climate, but to their sacred and noble river—the Nile—they owed all these elements of success. The rich alluvial deposit, formed by the periodical overflow of that river, possessed fertilising properties which gave the farmers peculiar facilities for the raising of crops for food, and for furnishing them with material for carrying on an industry which placed them in the first rank as a manufacturing people.

With the natural advantages which their country possessed, it is not surprising that they arrived at a very high degree of civilisation, and possessing all the necessities, and many of the luxuries of life, they became self-reliant, and very much isolated from surrounding nations.

The soil being well adapted for the cultivation of the flax plant, it was extensively grown, and the mode in which this ancient

people treated it corresponds very closely with that adopted in our own time. From the words inscribed on monuments and tombs we trace the various stages through which the raw material passed, until it was spun into thread, and passed through the subsequent processes of weaving and finishing. These details are noted with an accuracy and faithfulness which is truly wonderful. The pulling of the flax, the steeping, drying, breaking, scutching, and dressing of the fibre for spinning, are minutely described, and may still be seen on those imperishable tablets found in the rock tombs of ancient Thebes.

Sir J. G. Wilkinson, in his researches into the history of this people, has very fully described and illustrated the mode of treatment, and the stages through which this fibre passed till the cloth was produced; and it is interesting to note what very little deviations have been made in modern times from the process of manipulation practised some 3,500 years ago.

Pliny — the naturalist — explains these different processes, which form the subject of so many of those old paintings, whose brilliant colouring to this day retains much of its original freshness. Speaking of the steeping process, he says "the stalks themselves are immersed in water, warmed by the heat of the sun, and are kept down by weights placed upon them, for nothing is lighter than flax. The membrane or rind becoming loose is a sign of its being sufficiently macerated. The stalks are then taken out, and repeatedly turned over in the sun, until perfectly dried, and are afterwards beaten with mallets on stone slabs. That which is nearest the rind is called tow, inferior to the inner fibre, and fit only for the wicks of lamps. It is combed out with iron hooks until all the rind is removed; the inner part is of a whiter and finer quality. After this process it is made up into yarn, and it is polished by striking it frequently on a hard stone moistened with water." Wilkinson illustrates these processes, his work showing the steeping ponds at Beni Hassan, beating the stalks, making of ropes, and the weaving of cloth. In the finishing processes, which are shown in other paintings, the beating of the cloth with clubs and the smoothing of it with wooden instruments to give it a polish evidences the perfection to which this manufacture was brought.*

As regards the mode of spinning the fibre, the universal plan, and one which was adopted and practised by all nations down to comparatively modern times, was by the spindle and distaff. Around the latter, which was a piece of wood, the prepared flax was wound, and was held either in the left hand or fastened to the

* Pliny speaks of four descriptions of linen which the Egyptians manufactured; and states that the quantity of flax cultivated in Egypt was accounted for by their exporting linen to Arabia and also to India.

belt in some manner. The spindles—several illustrations of which are given by Wilkinson—were 12 to 15 inches long, made of wood, in a bulbous form ; some were of lighter material, such as rushes, stained in various colours, they tapered to a point, which was rendered heavy for the purpose of spinning on the ground, and increasing the impetus ; to the other end or handle the flax thread was attached, and by drawing the hand quickly across the spindle, as it lay on the knee, it was made to spin rapidly in the air or on the ground, whilst the flax fibre was drawn from the distaff.

Some of these spindles have been found in the ruins at Thebes, and are now in the British Museum. Wilkinson himself found one which had some thread wound on it.

The occupation of spinning was practised in all ages by women, and as designating the art we have the word “spinner” or “spinster” applied to females, who doubtless devoted more time to this occupation before domestic affairs connected with married life took the place of these lighter duties.

Herodotus—who has been called the father of history—in speaking of Egypt, says—“It claims our admiration beyond all other countries, and the wonderful things which it exhibits demand a very copious description. The Egyptians, born under a climate to which no other can compare, possessing a river, different in its nature and properties from all other rivers in the world, are themselves distinguished from the rest of mankind by the singularity of their institutions and their manners. In this country the women leave to the men the management of the loom, in the retirement of the house, whilst they themselves are engaged abroad in the business of commerce. Other nations in weaving shoot the woof above, the Egyptians beneath.”

The historian, however, had fallen into error regarding the relative duties of the sexes, for the paintings give many examples of women as well as men engaged in weaving ; and the statement regarding commercial business being confined to women is also inaccurate.

From the catacombs at Thebes, immense quantities of linen cloth have in latter times been brought to light. It was the universal practice among this people, who were so skilful in the process of embalming bodies—whose wonderful preservation to this day attests, in no small degree, the extent of their civilization and knowledge of the art—that they were to be enveloped in linen, the reason being its known purity, as resisting the development of animal life, which would destroy, in a short time these bodies, which it was their belief, should be carefully preserved. From these mummy clothes we gain much of the knowledge we possess regarding the linen manufacture as practised

by this people. According to the rank which the person occupied, there was a corresponding amount of cloth used, varying in texture from the coarsest up to that of the very finest; in fact some samples of the latter have been discovered which in beauty of texture rival the production of our hand-loom cambric linen. Some of these linens, when first discovered, were believed to be mixtures of silk, cotton, or some other fibre than flax, so doubtful were investigators in believing that the spinning and weaving of flax had attained to such perfection as was subsequently admitted, but after careful microscopical and chemical analysis, scientists have affirmed the purity of these textiles, as being free from admixture of every description. Under the microscope, the flax fibre shows a peculiar transparency, is cylindrical in form, and has a jointed appearance resembling the sugar cane. Cotton fibre has a flat ribband like appearance, and shows what might be described as a selvage at each side.*

Not only did the Egyptians attain to great perfection in the treatment of the flax plant, and the art of manufacturing it, but they were likewise acquainted with processes by which it could be dyed to various shades, and though they had not the knowledge we possess of bringing the cloth to that snowy whiteness which distinguishes our productions, they were, nevertheless, able to produce a very fair bleach.

We have again to refer to the writings of Pliny in proof of this. He states—"In Egypt they stain clothes in a wonderful manner. They take them in their original state, quite white, and imbrue them, not with a dye, but with certain drugs, which have the power of absorbing and taking colour. When this is done there is still no appearance of change in the cloth, but as soon as they are dipped in a bath of the pigment which has been prepared for the purpose, they are taken out properly coloured. The singular thing is that, though the bath contains only one colour, several hues are imparted to the piece, these changes depending on the nature of the drug employed, nor can the colour be afterwards washed off, and surely if the bath had many colours in it they must have presented a confused appearance on the cloth."

In the finishing of their linens, the Egyptians had not the skill or knowledge which we possess. Beetling engines and calenders were

* We think that the microscope, which is every day coming more and more into popular use, as a means of investigating the wonders of the animal, vegetable, and mineral creation, might be turned to greater practical account than it is; and, in connection with the analysis of textile materials, would be useful to merchants and manufacturers, for testing the fibres of various materials, and ascertaining their component parts. To find an instrument suitable for such purposes, sufficiently simple in its mechanism to be readily used, was a matter into which the author inquired, and he believes he has succeeded in getting one, which, for all practical purposes, may be found to answer. For a detailed description the reader is referred to the advertising pages of this work.

unknown to them, and whatever degree of fineness of texture or glossiness the linen showed, it was imparted in a very laborious, imperfect, and clumsy manner. In the paintings, various tools for smoothing and polishing linen are shown, and it is a matter of surprise that with such rude instruments they were able to give so good a finish to their cloth.

The Egyptians not only manufactured linen cloth on an extensive scale for their own use, but the fame of their art having spread among surrounding nations a very extensive trade was carried on among them, and though we have no statistical records to quote regarding this foreign traffic, from all that can be gathered respecting it, it was very considerable. To Persia, Arabia, Palestine, Greece, and all along the shores of the Mediterranean their manufactures were sent. To Tyre, that ancient city, famous for its rich dyes, it is probable a large quantity of cloth was exported, and after being dyed was sold in the various markets with which the Phœnicians traded. In the 27th chapter of Ezekiel a description is given of the riches and commerce of Tyre, in connection with the judgments impending over it (and which were executed by Nebuchadnezzar 572 B.C.), reference is therein made to the fine linen which they brought from Egypt. Besides plain linen for clothing and domestic purposes, and for shrouding, the Egyptians manufactured sail cloth for the galleys of the Mediterranean. One of the paintings represents a ship in full sail, and the cloth has the appearance of having been made from hemp, a fibre which also extensively grew in that country.

Thus we see that this great people, renowned in fine arts and architecture, were equally skilled in textile manufactures, and as their temples and monuments have excited the wonder and admiration of all ages, in no less degree have their industrial pursuits marked them out as a truly original and ingenious race.

It is not our intention to follow up the history of this people in reference to the special branch of industry in which they have been our teachers, but merely to glance at the origin of the manufacture in this its cradle, and from that to trace its future development.

After remaining a monopoly in Egypt for many centuries, owing to the oppression of rulers in subsequent times, who were less disposed to cultivate the peaceful arts, this great enterprise gradually decayed, and with other traces of its former glory became more and more obscured, until finally it might be considered as lost, or buried in their rock tombs, only to be brought to light in modern days, to bear testimony to their civilisation and industry in dark and barbarous ages. Within the present century efforts have been made by the Government of the Pasha to re-

establish the flax industry, and to a limited extent this has been successful; still the total value of the exports is only of very small amount, and the manufacture is almost solely confined to coarse cloth.

The value and importance of a manufacture so great as this, was thoroughly appreciated by that famous race of navigators—the Phœnicians—who at one time carried on an extensive trade not only with the surrounding countries, but all along the shores of the Mediterranean, and who some 2,800 years ago are said to have pushed beyond the Straits of Gibraltar, and landing on the coast of Spain, founded a city called Gadir, 896 B.C., subsequently called Cadiz. To Spain they appear to have traded regularly, and doubtless, among other articles, bartered for the metals of that country Egyptian linen.

That surrounding nations had probably at different times learned the art of flax culture, and linen manufacturing there is abundant evidence, but none in ancient times bore any comparison to the Egyptians. Other nations excelled in woollen, silk, and cotton fabrics, but the seat of the linen industry was essentially located in Egypt, and her commerce in that textile placed her in the front rank of nations for wealth and intelligence.

The Egyptians were not inclined to push in any vigorous manner an export trade in their own goods, and being indifferent navigators, and entertaining a great dislike to the sea, they yielded to others what would have largely contributed to the maintenance of their greatness as a manufacturing people—the traffic in their own products. It is recorded that though at one time they had carried on a desert trade as far as the western coast of India, they had ultimately to relinquish it to a people less actuated by national prejudices and superstitions, and of more friendly and sociable tendencies than the Egyptians. The Phœnicians on the contrary entertained none of the scruples or prejudices peculiar to the Egyptians, and readily seized the advantages thus thrown in their way, for pushing a lucrative trade in merchandise of such essential importance as linen, and they are said to have taken possession of the harbours on the Red Sea and elsewhere, which had been abandoned by the Egyptians.

The chief cities of the Phœnicians were Tyre, Sidon, and Biblus, and in these ports they built their ships, and traded to all parts of the then known world. The Phœnicians, or Canaanites of Scripture, have sometimes been confounded with the Arabians, who were a different people.

Sidon, which is said to have been founded 2,200 B.C., was a great naval port. The mountains of Lebanon afforded an inexhaustible supply of cedar for shipbuilding and other purposes.

Tyre was founded in later times, about 1250 B.C., and ultimately rose to such greatness and wealth as to eclipse Sidon. Tyre was long famous for and held an important rank in ancient history for having discovered, and long retained, the secret by which those beautiful purple dyes were imparted to various fabrics.

Rawlinson writing on Phœnicia, says, about 800-900 B.C. "The commercial spirit of the Phœnicians was largely exemplified by the fact of their establishing colonies along the coast of the Mediterranean, which were rapidly covered with settlements and cities, built on the shores of the ocean. Factories were established on the Persian Gulf, and conjointly with the Jews on the Red Sea. Phœnicia had at this time no serious commercial rival, and the trade of the world was in her hands. Her commerce was chiefly a carrying trade, but there were also a few productions of their own in which their traffic was considerable. The most common of these was the purple dye, which they obtained from two shell-fish, the Buccinum and the Murice, and by which they gave a high value to their textile fabrics. . . . Industry and enterprise reaped their usual harvest of success. The Phœnicians grew in wealth, and their towns became great and magnificent cities. In the time when the Babylonian Empire came into being, the narrow tract of Phœnicia—smaller than many an English county—was among the most valuable countries of Asia; and its possession was far more coveted than that of many a land whose area was ten or twenty times as great."

In proof of the intrepidity of these ancient navigators we have a statement by Herodotus, who visited Egypt, that an exploring expedition was fitted out by Necho, King of Egypt (the Pharaoh Necho of Scripture), by which the Phœnicians were said to have circumnavigated the coast of Africa about 600 B.C.

The most important colony which this people founded was Carthage. For about six centuries the Phœnicians held almost undisputed sovereignty of the sea; until the time of the Romans, a people who speedily eclipsed the Phœnicians in their zeal for discovery and conquest.

The dynasty of the Pharaohs, under whose rule the linen manufacture was extended and perfected, was overthrown by the Persians, 525 B.C., to whom it became subjected. Next Egypt fell under the sway of Alexander the Great, then of Ptolemy 323 B.C., till finally it became subject to imperial Rome B.C. 30. The Romans held the country till seized by the Saracens, A.D. 640. Under their control, its ancient glory, which had long been obscured, crumbled away, and became finally extinct, and all that remained, to attest a once prosperous and distinguished race, fell under the rule of the Turks in 1517.

The mode of manufacture, which is so graphically described and illustrated by Wilkinson, may prove interesting if more minutely described in this place.

In one painting, a weaver is represented as sitting on the ground, and interlacing the warp by throwing through the weft with his hand, driving the weft home with a kind of lath, which, like the Irish weavers' "sleys," ran across the warp, and in this case was placed in the horizontal position. Another painting shows the warp as upright, and the weft thrown in with a long needle. Again we have the picture of a woman putting in the weft, whilst a second female operative strikes it home. As they appeared unacquainted with the shuttle used in later times, the difficulty of filling in the weft must have been very great, and as the operation was necessarily tedious, it is not surprising to find that the webs were often much below the square, seldom equal to the warp, and in some descriptions of cloth so low in weft as to be only about one shot to every four of warp.

But whilst the bulk of their manufactures ranged from low to medium sets, the Egyptians were likewise adepts in the production of the finest fabrics, which compare favourably with specimens of our own cambric looms. In the mummies which have been unrolled immense quantities of linen cloth have been recovered, and from the bodies of some as much as 300 hundred yards of material have been taken, varying in quality, from the coarsest description on the inside, to the finest towards the outside. The bodies of the kings, nobles, and priests were enveloped in some of these finest cloths.

Mr. Thompson, writing on the mummy cloth of Egypt, states that in Belzoni's mummy cloth the warp counted 90 to an inch, and the weft about half of this ; but specimens have been found with 152 threads of warp to 75 threads of weft ; but even this was not the finest specimen found. One was discovered at Memphis which counted 540, or 270 double threads to the inch in the warp, but only a 110 in the weft. The width varied from about a yard down to a few inches.

Not only were the Egyptians skilled in the bleaching and dyeing of cloth, but specimens of cloth dyed in the yarn, and some very beautiful bordered, coloured, and fringed cloths have been found, and some of the paintings represent fabrics of these different descriptions. They were also skilled in embroidering, and working devices of various kinds in gold thread, at a very early period, and from them the Israelites learned this art, and afterwards turned it to account in working the draperies connected with the Tabernacle, for it is stated, "they did beat the gold into thin plates, and cut it into wires, to work in the blue, and in the purple, and in the scarlet, and in the fine linen." The knowledge

of dyeing cloths to various colours necessarily implied a knowledge of mordants, and the mode in which this process was carried out has been described by Pliny.

The foregoing will convey but a very imperfect idea of the ancient linen manufacture, and the great perfection to which it had been brought by the Egyptians. We are so apt in the present day, owing to the proud position we occupy as manufacturers of this textile, to forget that much of the knowledge we possess regarding it is derived from this ancient people, whose special industry had attained to a high degree of excellence when the patriarch Abraham first visited the country; and when his descendants, in a subsequent age, left it to carve for themselves an imperishable name, the manufacture had attained a high degree of excellence.

Those who wish to obtain a more extended description of ancient linen, and of the various countries where this manufacture was carried on in olden times, are referred to the exhaustive work on the linen trade, by Mr. A. J. Warden, of Dundee, who, as the result of much painstaking investigation, has produced a valuable and interesting book on the subject.

CHAPTER II.

Historical Sketch of Flax Spinning and Linen Manufacturing in Ireland, from the earliest period.



VERY little of a precise or authentic character is known respecting the cultivation of the flax plant in Ireland in ancient times, or of the period in which the art of weaving was introduced. As a matter of course the traditional theories handed down to us have been the subject of much controversy, and like the previous question regarding the original settlement of people in the country, have afforded ample scope for debate; and upon the materials within our reach, many fanciful histories have been written. Much of the early annals of Ireland may be regarded as traditional, and these are embodied in those manuscripts which date from the fifth to the fifteenth century, in which ancient history is interwoven with the poetical fancies and mythological creations of those early settlers in the kingdom. It is true we have archæological remains, and works of art, which relate to their true history; and it is from these, as well as from the merits of these MSS. themselves we can gather much to interest, and collect sufficient material, which disentangled from the web of fiction surrounding it, remains as imperishable testimony to the great genius and power of the ancient Irish race.

For the earliest records of our people we have then to trust largely to the biographies of the saints; and it is through these writings we get those glimpses, incidentally thrown in, which form the historic chain that connects the people of ancient Erin with those of modern times, as engaged in various handicrafts, carrying on—amongst others—the manufacture of which this chapter treats.

As the descendants of Ham have been traced among the

Egyptians and neighbouring nations, and those of Shem among the more eastern portion of Asia ; so the posterity of Japhet are believed to have migrated towards the west of Europe, and, as before stated, many theories have been projected respecting the first colonisers of our own green Isle.

The researches of Irish scholars of late years, and to whose works we shall refer, have thrown a flood of light upon the historic associations of our country, and will well repay a careful study.

Notably among these stand the works of Drs. O'Donovan, O'Curry, Todd, Graves, and many others, which supply a collection of the most varied and inexhaustible antiquarian treasure.

To the admirable lectures delivered by the late Dr. O'Curry, in Dublin, in 1860, we propose to make free reference, as in some of these we have detailed from those ancient MSS., and from the collection of antiques in the Irish Academy, a most interesting view of the habits and customs of the people, their arts and manufactures.

The Phœnicians, to whom reference has been made in the previous chapter—those intrepid navigators of the high seas—are, by Bochart and other writers, believed to have traded to Cornwall for tin as early as A.M. 3,100, or 904 years before the birth of Christ. This people are credited with having colonised Ireland, but the question is still involved in much doubt. The Druids (Rees Cycl) are said to have been a tribe of the ancient Celt, who emigrated, as Herodotus tells us, from the Danube towards the more westerly parts of Europe, and settled in Gaul and Britain at a very early period. The origin of the Druids in Erin (O'Curry says) is carried back by our ancient writings to the earliest colonisers of the country, who were all, be it remembered, traced to the race of Japhet. The Milesian colony—also Japhetians—passed in their migrations from Scythia into Greece, out of which they had previously come; thence into Egypt, then into Spain, and so from Spain into Erin, which they reached about 200 years after the conquest of the Tuatha de Danann, that is in the year of the world 3,500, or about 1,700 before Christ, according to the chronology of the Four Masters.*

* In the Annals of the Four Masters it is recorded—The age of the world was 2,520 when Parthalon, with his three sons and their four wives, came to Ireland. A foot-note says—This date would correspond with the 21st year of the age of the patriarch Abraham, or 318 years after the deluge. . . . In age of the world 3,500—The fleet of the sons of Milidh came to Ireland, at the end of this year, to take it from the Tuatha de Danann. And a foot-note states—Máeghehagan in his translation of the Annals of Clonmacnoise adds—That the sons of Miletus (Milesians) arrived in Ireland on 17th May, 1029 years before the birth of Christ. Another authority states they arrived 1,842 B.C. The chronology of the Four Masters reckons 5,200 years from the creation of the world to the birth of Christ.

Many of these dates are purely apocryphal, and our belief in the accuracy of them is much shaken by finding the chronological records begin with the startling statement (recorded in the "Book of Leinster") that Cœsar, the granddaughter of Noah, with a band of fifty girls and three men, came to Ireland on the Sabbath day, the 16th day of the moon's age, and forty days before the Flood.

"In any case the time has scarcely come for dissecting and analysing the curious tissues of legends of Umorians, Fomorians, Nemidians, Firbolgs, Tuatha de Danann, Milesians, and others, which constitute the mythical part of Irish history. As in the case of the other nations of middle and north Europe, true chronological history began in Ireland either by contact with the Romans or with the introduction of Christianity. And, like the mediæval chronicles of everywhere else, the early Irish Christian chroniclers and genealogists tacked on the pedigrees of Irish kings and chieftains to those of Genesis."*

Whatever doubts exist regarding the early colonisation of Ireland, from all that can be gleaned, we find that the manufactures, of which we at this day are justly proud, can be traced back through the middle and dark ages; and in the dim twilight of remote antiquity, unmistakable traces are found of their existence among those Celtic tribes, who, no doubt, brought from the East, not only the seed, but the skill to treat and manufacture the fibre.

From the ancient MSS. before referred to, indubitable evidence exists that for centuries anterior to the birth of our Saviour the inhabitants of this country were acquainted with the art of spinning and weaving; possibly woollen materials were originally more extensively used than linen, for in many descriptions given us respecting the dress of the ancient Celts we are left in doubt as to the material of which it was composed, but enough may be gleaned from these writings to justify the claim as to the great antiquity of the textile upon which we treat.

Among those ancient MSS., the *Senchus Mor*—translated by Dr. O'Donovan—supplies most interesting particulars. From this we learn that not only were the ancient Irish acquainted with spinning and weaving, but with bleaching and dyeing, and the mode of treating the flax plant, and its manipulation through all after stages resembled that of Egypt, from which all knowledge of the art is believed to have come.

The English laws, for long after the conquest of Ireland, being inoperative beyond the Pale, which comprised the counties of Louth, East and West Meath; Kildare, Dublin, and Wicklow, all through the rest of Ireland, down to Elizabeth's reign, the Brehon, or ancient Irish laws, administered by the Irish judges, called Brehons, was the recognised code of administration so long as the sway of the Irish chieftains remained. The proclamation issued in the reign of James I. set aside those ancient statutes, and in their place English law was substituted, the entire country being then completely divided, as at present, into its respective counties.

* O'Curry—Intro. by O'Sullivan vol. I.

It is impossible to assign a correct period to these ancient laws, or learn their origin, but so far as can be gathered from the *Senchus* these laws had been recognised and acted upon long before the Christian era.

Writers upon the religious history of the country ascribe to the ancient Irish a high degree of Christianity, and from the records which have come down to us, chiefly in connection with the mission of St. Patrick, we find the people were brought, at a very early period, under the influence of the Gospel; and that, on account of the readiness with which Christianity was embraced, it has not inaptly been described as the "Isle of Saints."

In the annals of the Four Masters—compiled in 1632—it is mentioned. "The age of Christ 438. The *Senchus* and *Feinechus* were purified and written; the writings, and old books of Ireland, having been collected and brought to one place, at the request of St. Patrick."

"These were the nine supporting props by which this was done. *Laeghairie*, i.e. the King of Ireland, Corc and Daire, the three kings: Patrick, Benen, Cairneach, the three saints: Ross, Dubhthach, and Fergus, the three antiquaries." This council appears to have collected and revised the traditionary laws by which the Island had been governed, and we are told that after Patrick had preached the Gospel to the natives they then set about this judicial work. These laws, "founded on the laws of nature, interpreted by conscience, were (instead of ascribing what was good in the judgment of the Pagan Brehons to direct instruction in the law of Moses in Egypt) attributed to the influence of the Holy Spirit upon the just men who before their conversion to Christianity were in the Island of Erin," the reason added, "for the law of nature had prevailed where the written law did not reach;" and, it is further stated, "what did not clash with the Word of God in the written law, and in the New Testament, and with the consciences of the believers, was confirmed in the law of the Brehons by Patrick, and by the Ecclesiastics, and the Chieftains of Erin; for the law of nature had been quite right, except the faith and its obligations, and the harmony of the church and people. And this is the *Senchus*."

Having briefly alluded to these ancient Irish laws, we shall refer to such portions as throw light upon the manners and customs of the people of ancient Erin, especially in reference to their industrial pursuits.

In the law relating to "Distress" we find many interesting allusions to manufactures. Under this law, which regulated the recovery of debt, the creditor was empowered, under certain conditions laid down, to make a seizure, or distress, upon the

property of the debtor, which, however, for a period, varying from one to fifteen days, though legally seized, was under stay of execution, to afford time to the debtor to discharge the obligation. As regards seizures made on behalf of women, for either the value of their work or materials, two days appears to have been the extent of stay allowed.

With this explanation we quote the law as specially applicable to such cases as illustrate the subject.

“Distress of two days for the price of the produce of the hand ; for wages for weaving ; for the blessing of one woman on the work of another ; for every material which is on the spindles ; for the flax spinning stick ; for the wool spinning stick ; for the wool bag ; for the weaver’s reed ; for all the implements of weaving ; for the flax scutching stick ; for the distaff ; for the spool stick ; for the flyers of the spinning wheel ; for the yarn ; for the reel of the spinner ; for the border ; for the pattern of her handy work ; for the wallet with its contents ; for the basket ; for the leather scoop ; for the rods ; for the hoops ; for the needle ; for the ornamental thread, &c.”

The lawful right of the pledged needle of the embroideress is laid down in the law—“She is paid the value of an ounce of silver, in ornamentation, for every needle which she has pledged.”

In laws of a similar kind reference is made to spinning, weaving, and dyeing.

The following are some items, for the recovery of which women had recourse to the law :—

1. The price [or wages] of hand produce [labour] that is the price of what she has produced with her hand—namely, teasing and colouring and weaving (wool), the price or pay being one-tenth part of each work [*i.e.*, the value of the woven piece]. Also for napping [or sleeking] the cloth, half the wages of the weaving women, *i.e.*, the wages given [*i.e.*, the price of weaving].

2. For materials such as grey flax and grey woollen yarn when upon the spindles.

3. For a flax spinning spindle.

4. For a spindle, *i.e.*, a wool spinning spindle or a spindle of weft.

5. For a foot bag [that is a bag that contains the sorted wool], and which is placed under (or at) the woman’s feet, out of which she combs (or cards) her materials, that is the combing (or carding) bag.

6. For a Feith geir, which puts a sharp (smooth) face upon her weaving. [This, O’Curry adds, was probably the sleeking stick or bone which weavers still use to close and flatten linen cloth on the breast beam of the loom while in process of being woven.]

7. For all the weaving implements, *i.e.*, for all the instruments used in weaving, including beams and heddles, *i.e.*, weaving rods.

8. For the flax scutching stick, *i.e.*, by which the flax is scutched. For the distaff, or flax rock, or for the spindle for spinning wool.

9. For a rolling beam, *i.e.*, the beam without the radiating head, without sharp points.

10. For a border (or fringe) sword, that is the sword or lath upon which the border or fringe is woven.

11. For materials, *i.e.*, for the finished material, the material which wants only to be woven, *i.e.*, the white balls, the white (bleached) thread.

12. For the instruments of the manufacturing women—namely, the winding bars, *i.e.*, the tree upon which she prepares the yarn; the winding reel.

13. For a border fringe upon itself, *i.e.*, cloth having a border edge or fringe made of its own warp, and not sewed on.*

In the annals of the Four Masters (p. 43), age of the world 3,656, it is stated that by Tighearnmas clothes were dyed purple, blue, and green.

O'Curry, in his interesting lectures on the "Dress and Ornaments of Ancient Erin," says—"The introduction of diversity of colours in dress is attributed to the monarch Tighearnmas, who is said to have reigned at the remote period referred to. To the monarch Eochaidt Edgerdach (or Eochaidt, the 'cloth designer') is attributed the extension and complete establishment of a sumptuary law, regulating the colours to be worn in dress, such a law implying considerable advance in the arts connected with weaving and dyeing."

The "Book of Leinster," which is the oldest authority, says :—
"Tighearnmas, the son of Ollaig, then assumed the sovereignty, and he broke three times nine battles, before the end of the year, upon the descendants of Eber. It was by him that drinking horns (or cups) were first introduced into Erin. It was by him that gold was first smelted (the word used means literally boiled) in Erin, and that colours were first put into clothes, namely, brown, red, and crimson, and ornamental borders."

"We are told by Keating, on the authority of a similar ancient record, in existence in his time, but now lost, that cloth was first coloured crimson, blue, and green in Erin, in reign of Eochaidt. It was by him that various colours were introduced into the wearing clothes of Erin—namely, one colour in the clothes of servants, two colours in the clothes of rent paying farmers, three colours in the clothes of officers, five colours in the clothes of chiefs, six colours

* *Senchus Mor*. Harleian MSS., 482, Brit. Mus.

in the clothes of ollamhs and poets, seven colours in the clothes of kings and queens. It is from this (says the old book) the custom has grown this day that all these colours are in the clothes of a bishop."

"Although the number of colours which are here mentioned as having distinguished each of the seven classes into which the people of Erin at so early a period had been divided by the Milesian colonists, we have no description signifying what these colours were exactly which were then employed in dress excepting brown, red, and crimson, which Tighernmas is stated to have previously established."

In reference to the war of the Tain Bo Chuailgne* the following is a description of the chiefs who answered the summons of Queen Madbh. "The first party came had black hair, they wore green cloaks with silver brooches, the shirts which they wore next their skins were interwoven with threads of gold. The second company had closely cut hair, light grey cloaks and pure white shirts next their skin. The third and last party had broad cut, fair yellow golden, loose flowing hair upon them; they wore crimson embroidered cloaks with stone set brooches over their breasts (in their cloaks) and fine long silken shirts falling to the insteps of their feet."

"It does not appear from the passage in question what the materials of the robes alluded to were, but we may presume they were native wool and flax, and probably imported silk 'seriac,' as it is called in some of our ancient tracts."

Loeghairi Buadach, that is Loeghairi, the victorious, the chief of Immail in Ulster, he had a yellow fringed shirt next his skin. Seneha, the orator, is described as having a white shirt, with a collar, next his skin. Other chiefs are described as having shirts of striped silk, shirts of kingly silk, turned up with a red hem of gold, next the skin; another as having a cloak mottled with the splendour of all the most beautiful colours. All Ulster chiefs of various clans—Fergna, the son of Findconna, King of Burach in Ulster, is described as having a long red cloak, with a clasp of white silver in it, over his breast, and a linen shirt next his skin.

These descriptions (says O'Curry) are surely specific enough to afford us a very vivid glimpse of the dress and accoutrements, as well as the personal appearance, of the Gaedhelic warriors of two thousand years ago.

*An ancient tale (referred to in the "Book of Leinster") respecting a battle, between the Queen of Connaught and King of Ulster, said to have been fought about 100 years B.C., in which the extraordinary valour of the Red branch knights of Ulster and Firbolgs of Connaught is narrated with poetic exaggeration.

"In the extracts from the laws, as well as from the 'Book of Rights,' we have the processes of dyeing, carding, spinning wool, and weaving it into cloth. The process of preparing flax, the pulling of it out of the ground, the tying of it in bundles; the retting or steeping of it in water, the taking of it up, and drying and tying into bundles again; the breaking of it with a mallet, and the scutching of it (the combing and hackling are omitted, unless we take the combing of the wool to be the hackling of the flax). "We have it put on the rock or distaff, spun upon the spindles, formed into cuts from off the spindles, put upon the vertical reel, broken off the vertical reel into skeins (boiled with home-made potash, and put out on the grass to bleach, which is omitted here, although the bleached thread is spoken of.) We have next the skein when bleached laid on the horizontal reel, and wound into balls for warping, as well as for weft (warped upon the wooden pins either driven into the walls of the house or on a frame specially made for the purpose), and then into the loom and woven."

"No sooner did Christianity raise her heavenly banner over Ireland than the charming ingenuity of woman was put into requisition to adorn, with befitting dignity and splendour, the glorious and devoted soldiers of the cross. St. Patrick kept three embroideresses constantly at work, with, we may be sure, a sufficient staff of assistants. These were Lupait, his own sister, and Eric, the daughter of King Daire, and Cruimthoris of Cenngoba. St. Columb Kille had also his embroideresses. . . . All our ancient histories and romantic tales abound in reference to splendid vesture and personal ornaments of gold, silver, precious stones, and fine bronze, from the first battle of Magh-Tuireadh (said to have been fought more than 1,700 B.C.), down to the fourteenth and fifteenth centuries. . . . The ancient Irish goldsmith appears to have worked at, or near, the mine, and there fabricated those splendid articles, the delicate mechanism of which puzzles and astonishes expert workmen of the present day. A goldsmith, named Len, worked at Loch Lein (now the celebrated lake of Killarney), 'with his many hammers,' and made all kinds of ornaments, &c. Len [according to the Four Masters], flourished about 300 B.C., and far within the sway of the Milesian dynasty."

The foregoing are extracts, from lectures of this able scholar and antiquarian, who has illustrated, by reference to ancient records and antiques, the skill and ingenuity of the inhabitants of ancient Erin, and though these MSS. are interwoven with the poetic creations for which the native race has ever been famous, there still remains much of a deeply interesting nature bearing upon their knowledge of various handicrafts, and especially regarding the manufacture in which we are concerned.

The popular belief respecting the origin of our linen manufacture—which did not attain to any great importance till the seventeenth century—is that it can only be traced back to about the thirteenth. The researches, however, of late years have quite dispelled this notion, and we now learn that long before “her faithless sons betrayed her” the inhabitants of the green Isle were skilled in this manufacture; and far beyond the dark ages, and centuries before the Christian era, we trace its origin, and link its history with the founders of the art in the East.

It will be recollected that some thirty years ago, when the sewed muslin trade gave employment to many thousands of females in different parts of Ireland, we had writers on the subject alluding to embroidery work as something new in Ireland. But all such statements were incorrect, and showed what imperfect knowledge existed regarding this handicraft. The art of producing pictorial designs with the needle on fine linen was practised in this island in ages over which the mists of time have long cast their shadows. Even in still later periods of history, when robes for the higher order of the Catholic priesthood were elaborately decorated with purple and gold, needlewomen itinerated from one diocese to another, and found regular employment in furnishing new robes or repairing old ones. Indeed it is very doubtful that the embroiderers of modern times surpass or even equal the needlewomen of olden times, who worked those splendid vestments which adorned the kings and chieftains, and even St. Patrick himself, when that apostle won over the ancient race to the Christian faith.

CHAPTER III.

Position of the Trade from the Fifth to the Seventeenth Century.

HAVING got a glimpse of the flax industry as carried on in ancient times in Ireland, the present section is devoted to a sketch of the period between the introduction of Christianity to the close of the seventeenth century, a very long one, no doubt, to grasp, but as the materials which throw light upon it are few, and the facts relating to the history of the trade mere specks in this long vista of time, our labour in supplying details will be correspondingly light.

We have seen that centuries before the birth of Christ the inhabitants of ancient Erin were skilled in various arts and manufactures, which were carried on down to the advent of St. Patrick, and no doubt for long after his death, though traces of them were all but lost subsequently; we have now to refer to English history to supply the connecting link between that period and modern times.

The Phœnicians, who for thirteen centuries navigated the high seas, held a long intercourse with Britain, to which they traded for tin; in exchange they doubtless bartered much Egyptian linen, together with other articles which the natives required.

Whether the early inhabitants of England were acquainted with the art of weaving previous to the Christian era is a matter of some doubt, and if either woollen or flaxen manufactures were carried on they must have been on a very small scale, for when the Roman Empire extended as far westward as Britain, we are informed that Julius Cæsar in B.C., 54, found the inhabitants of the interior clothed in the skins of animals, and with their bodies painted, a practice, which Pliny remarks, they continued long after continental nations had abandoned it.

The history of every race furnishes similar evidence of progress. In the lowest state of civilised life, as already stated, skins were used; then clothing material made of hair and wool, and lastly the products of fibrous plants, the rarest of these being regarded as the greatest luxury.

So far as Britain is concerned, it is probable then that previous to the Roman conquest very little manufacturing was carried on, the inhabitants being content to exchange the natural products of the country for the manufactures of other nations; accordingly we find that these nations attained to a considerable degree of excellence in textile products long before Britain took any steps to vigorously carry them on.

Skill in the manufactures of wool and flax was acquired by the Belgic race at an early period, and by them these industries were actively prosecuted, so that for ages the Britons received from the north-western parts of Europe supplies of the greater portion of the clothing material which they used. From what formerly constituted the Netherlands, the finest products of wool and flax used in England were imported, and it is conjectured that the Belgians, who were experts in weaving, on coming to England prior to the Romans, spread the knowledge of cultivating the flax plant, which is indigenous to these islands, and probably whatever manufactures of the kind were carried on at the Roman conquest were done by these colonists.

The Romans doubtless used their power and influence to extend these infantile manufactures, and train their subjects in them, as they did in improved modes of agriculture; but, besides this, the Roman army appears to have established a manufactory of woollen and linen cloth at Winchester, and from this centre, no doubt, the knowledge of manufacturing would be extended.

The Druids are described as clothed in white, and as linen garments were prescribed for the use of the priests of Israel, and were also worn by pagan priests, it is concluded that the Druids' clothing was also linen, but whether of native or eastern manufacture is involved in doubt. In all probability it was the latter.

Macpherson, in his annals of commerce, states that about A.D. 500 "cloaks or plaids of wool were commonly worn both in England and in Ireland, and that they were adorned with a variety of colours, and probably of home manufacture. They had also fine linen at this period, which, with other sumptuous articles of dress, may be presumed to have been imported. The bodies of the dead, at least those of rank, were wrapped in fine linen."

Whatever knowledge may have been possessed by the people of Britain in these times, certain it is that the traces of native manufacture are so few, we are led to conclude that, for the greater

part of their clothing material they had to depend upon continental and eastern countries. With the irruption of the northern hordes which overran Europe in the fifth century, and ultimately led to the withdrawal of the Roman power from the west, and its final overthrow, progress in commerce and manufactures was arrested, and for some centuries a withering blight was cast over southern and western Europe, from which it began but slowly to emerge in the thirteenth century. During this period our information is scant, and the records which have come down to our time afford but little insight into the state of commercial intercourse among the nations, especially in reference to our subject. Such historic evidence as we possess, for the greater portion of this time, refers chiefly to wars and pillage, to massacres on sea and land, burnings and laying waste, oppressive taxation and levies by those tribes of Scandinavians, who were constantly making incursions into these islands, and impoverishing its inhabitants.

A long hiatus must, therefore, occur in the historic records of those peaceful arts, which are fostered and extended only where protection from external rapine is afforded.

Speaking of the antiquity and remains of the city of Winchester, Camden says—"That there the Roman Emperors seem to have had their imperial weaving houses for cloths of both woollen and linen, for the Emperors and the army, and most probably that necessary art was preserved in Britain after the Romans quitted it, though perhaps in a plainer kind, till the fourteenth century, when Edward III. introduced the fine manufactures from the Netherlands."

About the opening of the ninth century, Voltaire, in his history of Europe, states that "at Lyons, Arles, and Tours, in France, and at Rome, Ravenna, &c., they manufacture woollen stuffs, but that silk was not then woven in any town in the Western Empire till nearly 400 years afterwards." The same author alludes to the scarcity of linen, in mentioning that St. Boniface, in a letter to a German bishop, desires the bishop to send him a cloth (woollen it is supposed), with a large nap in it, to use when washing his feet. "Probably," adds Voltaire, "this want of linen was the cause of all the diseases of the skin known by the name of leprosy, so common at that time." The same author also writes that "nothing but poverty, confusion, and barbarism were to be seen in France both in the tenth and eleventh centuries, the fine manufactures being still confined to Greece and Italy—the French towns being poor, and almost depopulated."

In the latter part of the tenth century we find that woollen manufacturing had taken the lead in Flanders. The city of Y'pres, said to have been built A.D. 960, was long famous for its linen

and woollen products, the former being called cloth dY'pres ; from which place we obtained the knowledge of manufacturing what is now known by the name of Diaper.

For 400 years the famous manufactures of the Netherlands were used by France, Germany, and England, and from that part of the Continent was imported the finer descriptions of linen, for whatever manufactures of the latter were carried on in England or Ireland at this period, were only of the coarser descriptions.

1253.—According to Maddox (Hist. Exch. Chap. x.), "Henry III. in the 37th year of his reign directed the sheriffs of Wilts and Sussex, to buy for him, each of his respective county, 1,000 ells of fine linen, and to send it to his wardrobe at Westminster." The fine linen here referred to we would probably consider very coarse now.

The position of Ireland, with regard to her manufactures, had been exceedingly low for a very long time. Incursions of piratical hordes, and civil feuds had so impoverished it for centuries, that from the conquest by the English, in 1172, and for a hundred years after, it offered but little temptation to the English to develop its resources, or encourage industrial or agricultural pursuits.

The people were of warlike tendencies, and looking with distrust and disrelish upon their new masters, were but little inclined to do more than maintain a guerilla-like existence, regarding with suspicion every overture of friendship, and resenting, with four-fold vengeance, every act of oppression and wrong.

The traditionary recollections of these bitter strifes are kept alive to the present day. The light of Christianity, which at one time shone so brightly in our Island, became dim in after times, and with the departure of the native race from the simple faith of their forefathers, their arts and letters decayed, and the polish of earlier days as well as their religion gave place to gross superstition and barbarity, so that the country was an easy prey to the handful of adventurers who claimed it as a dependency of the crown of England.

From the conquest of the country until the close of the thirteenth century, Ireland was in an unimproved condition, as England took but little interest in its affairs, and though it garrisoned the country, it did not for a long period of time take steps to reduce it to entire subjection.

Mr. M'Call, in his interesting work on "Ireland and her Staple Manufactures," mentions that "during the time of the Anglo-Norman invasion the city of Armagh, then considered very rich in ecclesiastical property, was ruthlessly pillaged ; and so maddened did the natives become at seeing the sacred edifices swept of their contents by the ruthless marauders that, in order to disappoint the

further ravages of their avaricious enemies, they actually set their own houses on fire, and in that self-sacrifice vast quantities of private property, and 'much linen, yarn, and cloth,' shared the fate of the libraries of the monks, and many records of the ancient cathedral. Walter de Burgo, Earl of Ulster, had large parcels of linen woven for the use of his household in Bally-lis-nevan about the year 1245, and it is certain that considerable quantities of flaxen goods had been made in the venerable seat of education called Beann-char at a much earlier period. The famous monastery erected there was opened in the sixth century, and it is recorded that the abbots were most anxious to encourage local enterprise. Seeing, therefore, that the robes worn by the higher order of the clergy were all made of Irish linen, there can be no doubt that the distaff and loom were amongst the most popular sources of industry in the households of the farmers. When Bangor was plundered by the Danes, the sacredness of the abbey did not protect it from becoming common spoil; every corner of the building was ransacked, and among the property carried off there were many vessels of gold and silver, and vast quantities of fine linen and scarlet robes."

1272.—It is recorded by Macpherson that cloth of Ireland is mentioned as being stolen at Winchester, with cloth of Abindon & Burrell, of London, and, he adds, "I believe this is the earliest notice we have of any exportation of Irish manufacture." It is not certain what description of cloth this was, but in all probability it was wool, as the manufacture of cloth of that description had taken a lead in Ireland, and for a considerable period was her chief manufacture.

1299.—Table linen is stated to have been very scarce in England at this time.

1360.—About this period the woollen manufacture in Ireland had attained to a position of comparative importance. Macpherson states that stuffs called Fays, made in that country, were in such request that they had been imitated by the manufacturers of Catalonia, who were in the habit of making the finest woollen goods of every kind; they were also esteemed in Italy, and were worn by ladies of Florence, a city abounding with the richest manufactures, in which the luxury of dress was carried to the greatest height.

1375.—Parliament encouraged the manufacture of Irish frieze by passing an Act this year relieving it from subsidy and aulnage, and also from the operations of the stat. 50 Edward III., c. 8, for regulating the length and breadth of the cloth.

1382.—The agent of the Pope, we are told, collected this year, among other things, five mantles of Irish cloth, one of them bound with green cloth; one mantle of mixed coloured cloth, also lined

with green ; one garment of russet, lined with Irish cloth, and other articles, which were probably of Irish manufacture, though not exactly so specified.

1386.—In the ninth year of Richard II. a company of linen weavers appears to have been established in London. They were formed of the most part of those weavers who had been brought over from the Netherlands by Edward III.

In this year a rebellion broke out in Ireland, which retarded, for a time, the prosecution of the peaceful arts.

1399.—The manufacture of woollen fabrics is recorded as having been brought to great perfection in England at this date.

1410.—Irish cloth (Macpherson states) must have been pretty common in England at this period, as we find it charged equally with worsted stuffs, canvas, and some other articles, 2d. per hundred.

1429.—Whilst France at this period is represented as being in an impoverished and wretched condition, Flanders and Brabant, owing to the development of their splendid woollen and linen manufactures, abounded in riches and plenty, so that during the reign of Philip, Duke of Burgundy, their cities and towns had risen to a position of great wealth. It was chiefly owing to these woollen manufactures they acquired this position, and on the occasion of the marriage of that monarch, to mark the great value attached to them, a new military order was created, called "the Golden Fleece."

1430.—Among the commercial commodities described in Hakluts (I. vol., p. 187), brought to England at this time, we have enumerated. "From Flanders the Spanish ships trade homewards with fine cloth of Y'pres and of Courtray, of all colours ; much furniture, and also linen cloth. . . . Bretagne supplies Flanders with salt, wines, linens, and canvass. . . . Scotland's commodities are wool, woolsels, and hides. Their wool is sent to Flanders to be draped, though not so good as the English wool, with which it is there worked up. . . . Ireland's commodities are hides and fish, as salmon, herrings, and hake ; wool, linen cloth, and skins of wild beasts."

1448.—England had, however, not been indifferent to the proud position occupied by the manufacturers of the Netherlands, for we find that the latter, taking alarm at the great and rapid improvements effected by the English in their manufactures, passed certain Acts which virtually prohibited the imports of English cloth to Brabant, Holland, and Zealand ; so that, as a tributary measure, we find an Act in the 27th of King Henry VI. excluded the merchandise of the Netherlands from being sent to England under pain of forfeiture.

1467.—The Netherlands province (Anderson states), and more

especially Flanders and Brabant, were at this time in their meridian of glory, having prospered extremely in their vast manufactures of woollen and linen. For although by the increase of English woollen manufactures they had lost to a great extent their trade therein, they extended it to other parts of Europe, as they did also their linen manufactures; but twenty years after this (viz., 1487) a quarrel arose with the Archduke Maximilian, King of the Romans, which led to the ruin of the famous and wealthy city of Bruges.

1506.—A treaty was made at this period, by virtue of which English merchants were free to sell their commodities in Flanders, provided they did not do so by retail or smaller quantities than an entire piece of cloth.

1560.—From an old record of this period it appears the exports from Ireland, so far as textile manufactures were concerned, were not of much importance, in all probability nearly all the cloth made in this country, whether of flax or wool, was consumed at home. Antwerp is stated to have taken from Ireland skins and leather of divers sorts, some low-priced cloths, and other gross things of little value. Antwerp sent to Ireland much the same commodities as sent to Scotland, which were, among other things, serges, linen, and mercery. Wool does not appear to have been exported to any extent at this time, so that it is inferred that frieze cloth and other clothing made from wool consumed the greater portion of the raw material. It was not until more than 60 years after this that the exportation of Irish wool had been of such importance as to arouse the jealousy of England, but we find that in 1627 an Act was passed prohibiting the exportation of wool from Ireland except by license.

1588.—The production of cambric linen, so called from the city of Cambrai, rose to such a degree of importance at this time, it is stated that 60,000 webs were annually manufactured in that city, representing about £240,000, a very large sum at this period. The manufacture of woollen and linen cloth was also much extended in France.

1612.—The position of Ireland for a very long time had been exceedingly unfortunate. The English having taken no trouble to reduce the entire country to subjection, so that even within the Pale the old race of English settlers had become degenerated. As little interest was taken in its internal affairs, opportunity was afforded for the constant outbreak of feuds and animosities, which kept the country in a ferment, impeding agricultural and manufacturing industry. The native inhabitants are represented as being extremely wild and unsettled in their habits, and with little disposition to do more than engage in those pursuits of hunting, fishing, and rearing of cattle, as sufficed to meet their necessities.

Sir James Ware states that in Elizabeth's reign, "within a period of fifteen years, the money sent to Ireland amounted to £497,779 7s 6d, whereas all the revenue Ireland produced during that period was £120,000. But in the reign of James I. Ireland had become very much reduced in population by former wars and rebellions, and the King, now finding it at peace, appointed regular circuits of judges, and divided the country into counties. The benefit and protection of English laws were extended to all, whereby the Irish were reclaimed from their wildness, induced to cut off their glibbs or long hair, and to make their mantles into cloaks.* Encouragement was also given to trade, &c., so that until this reign Ireland was never entirely subdued to the Crown of England."

Those inhabitants of Ulster who had been of a rebellious disposition were all transplanted into Connaught, and the London corporations, which had obtained royal grants of land in Ulster, sent over, in 1612, a colony of 300 persons, of different handicrafts and occupations, for the purpose of repeopling Derry (which afterwards got the name of Londonderry) and Coleraine, and a corporation was established in London called the Irish Society.

The Lord Lieutenant on 20th May, 1615, issued an order that all persons attending sessions, or term sittings, should use and wear English attire and apparel, and that punishment, by fine and im-

*Walker, in his *Hist. Essay on the dress of the ancient and modern Irish* (pub. 1788), says—"Amongst the early Irish the beard was cherished with as much solicitude as formerly amongst the Orientals. Nor did the Irish restrain the growth of the hair on the head, but throwing it back off the forehead allowed it to flow about the neck, calling those suspended locks Coluns or Glibbs, and taking an honest pride in them. In the poems of Ossian frequent allusion is made to the Glibb, equally worn by both nations. . . . In the reign of Elizabeth the men wore linen shirts, exceedingly large, stained with saffron; the sleeves were wide, and hanging to the knees; straight and short trusses, plaited thick on the skirt; their breeches close to their thighs, and mantles most times cast over their heads. The women wore their hair plaited in a curious manner, hanging down their backs and shoulders, under folded wreaths of fine linen, rolled about their heads; rather loading the wearer than delighting the beholder." A writer in the reign of James I. said—"That the English-Irish, forgetting their own country, are somewhat infected with the Irish rudeness, and, with them, are delighted in simple colours, as red and yellow. The Irish gentlemen, or lords of counties, wore close breeches, and stockings of the same piece of cloth, of red or such like colour; a loose coat, and a three-cornered mantle, commonly of coarse light stuff, made at home. Their linen was coarse and slovenly. I say slovenly, for they seldom put off a shirt till it is worn, and those shirts, in our memory, were made of some 20 or 30 ells, folded in wrinkles, and coloured with saffron. The ladies had their heads covered after the Turkish manner, with many ells of linen, only the Turkish heads or turbans are round in the top, but the attire of the Irish women's heads is more flat on the top, and broader at the sides, not much unlike a cheese, if it had a hole in it to put in the head. The women's ancient head-dress so perfectly resembled that of the Egyptian Isis, it cannot be doubted but that the modes of Egypt were preserved among the Irish. Crowning the heads with rolls or folds of linen being so noted a mark of the Eastern custom that its source cannot be disputed. In the more remote parts of the country, where the English laws and manners were unknown, it was stated that—the chiefs of the Irish went naked, even in the winter time." Leland disputes the accuracy of the statement about the Irish chiefs in the remote districts being naked, and says—"There is no doubt but that in the reign of Elizabeth, even the old natives had degenerated, and that the wars of several centuries had reduced them to a state inferior to that in which the English found them, in the days of Henry II., yet the fact is totally incredible about their being naked, as the climate of Ireland must at all times have forced the most barbarous to some covering, even in their most retired chambers."

prisonment, would be inflicted upon all such as would appear before the Courts attired in mantles or robes, and not having their hair cut.

1636.—Lord Strafford, who was Lord Lieutenant of Ireland at this time, did all in his power to discourage the woollen trade, which was then beginning to rise into importance, but on the other hand he used every means he thought fit to promote and improve the linen industry; and, to assist in developing it, he spent out of his own means above £50,000. His first movement was directed towards the improvement of flax in the field, and for this purpose he imported seed from Holland, and likewise brought over Dutchmen to instruct the Irish farmers in the best mode of growing the crop. This led to a largely increased production of yarn, and gave a much more extended employment to women and children at the spinning wheel; but though the yarn was more plentiful it was found extremely difficult to improve the quality of the cloth or much increase its production. The exertions he used were in many respects praiseworthy, for besides selling the seed (which he imported) to the farmers, at cost price, he is credited with having succeeded in bringing the flax from an average of twelve inches in length to three feet; the yarn spun being also more regular in every respect, and the cloth much better, its breadth having been increased from about twelve to twenty inches. But the prejudice of an ignorant class, not only against the Englishman's rule, but also against the ideas he entertained, which were so contrary to the long established and conventional system pursued by the native population, stirred up their opposition and produced bitter strife, whilst many sad tales of suffering and cruel oppression are recorded as having been endured by the poor people who refused to comply with his arbitrary commands. Had conciliatory measures been adopted, and his agents instructed to temper moderation with all their efforts to overcome the deeply-rooted prejudices of the people, against innovations of the kind, he would doubtless have largely succeeded in bettering their condition, and improving still more the linen industry. But his ukases—such as this, “any farmer, weaver, or linen draper, who manufactured flax fibre by any other mode than that which he prescribed should be punished with the severest penalties the law could inflict,”—administered with Russian severity, provoked their animosity, and only produced a more determined resistance to his rule.

The increased production of yarn, therefore, not being worked up into a corresponding increase in cloth, it was sought after by English buyers, for we find in an account written by one Louis Roberts, respecting the trade of the city of Manchester at this time, that “Manchester buys linnen yarne off the Irish in great

quantity, and weaving it into cloth, returns the same again in linnen, into Ireland to sell."

The rebellion in 1641, and massacre of many thousands of Protestants, was followed by the confiscation of two and a half million acres of land, and, as the industry of the country had been all but destroyed, Ireland was reduced to a very low condition.

Nine years after this, home and foreign manufactures of all kinds had greatly extended, and a glut appears to have occurred in many of the markets of the world, for we find Sir Wm. Temple mentions that at this time "Sweden and Denmark, France and England had more than ever busied themselves about trade, that there seemed to have grown too many traders for the trade of the world, so that they can hardly live one by another." The woollen manufactures of Holland were pushed on vigorously, and competed seriously with England, so much so that an attempt was made to prevent the supplies of wool being sent from Spain to Holland.

A series of wars between the English and Dutch soon after followed, which crippled the resources of the latter; but though the English woollen manufactures were still in a flourishing state the Dutch held their own in point of finish; for the finer descriptions of English woollen cloth—for many years after peace was re-established—were sent over to Holland to be dyed and finished.

1660.—With all the advances towards improvement made in Ireland, down to this period it was still very far behind in commerce of all kinds. Sir J. Child mentions that "the people were poor, ill-clothed, and their houses worse provided, money 10 to 12 per cent., and intolerably scarce, notwithstanding the great plenty of provisions." Postage on letters from England to Dublin was 2s per oz., and 16d per oz. for internal postage over forty miles distance. But twenty years later, linen and woollen manufactures became greatly extended in Ireland, and the country generally had made considerable progress; the woollen trade in the southern districts had been gradually attaining to importance, and the exportations, year by year, increasing to such an extent as to cause great jealousy among the trade in England. Cheaper living and lower wages attracted capitalists from England and the Continent, so that the Irish woollen trade, especially friezes and coarse cloths, for which it had been long celebrated, defied competition, and threatened materially to curtail demand for English products. The manufacture of linen goods had also made considerable progress, and, owing to the reduced cost of production, English manufacturers complained that their trade was rendered unprofitable.

A kind of compact was then entered into between the Parliaments of England and Ireland, by which the latter, in 1698, imposed

duties on the exportation of their own woollen manufactures, believing, no doubt, that in giving up or reducing this trade, in order to promote the linen industry, they were doing the wisest thing which the circumstances of the time required, and public policy dictated. It is, however, a matter of deep regret that our Legislature was so short-sighted as comply with the demands of the English Parliament, and, by a suicidal act destroy a great industry. To please the manufacturers of Yorkshire, with the vain hope of buying a kind of monopoly in the manufacture of linen goods; for one great inducement was that England would give up the latter trade.

This last part of the compact was never observed by the manufacturers of England, and had it not been that Irish linens could be produced so much cheaper in this country, as to give our people a practical advantage, in all probability the fate of the woollen trade would have been followed by the destruction of the linen industry also. As the native Parliament had voluntarily surrendered this one trade, the Imperial Legislature could not, with any sense of public justice, pass measures to cripple the other; but many obstacles were thrown in the way of establishing it. However, so far as the King was concerned, he did much—as we shall presently see—towards extending and improving the linen trade.

It has been alleged that, as the woollen manufacture was chiefly confined to the south and west of Ireland, where the inhabitants were nearly all Roman Catholics, the policy adopted was to favour one party at the expense of the other. Though, no doubt, at the time many approved of this course, few at the present day would be found to justify such an act of oppression towards a class of their countrymen, whose party had been displaced by the revolution, which left uncontrolled power in Protestant hands.*

As it may prove interesting to some of our readers, we here insert the proceedings, by petition, at this time, which ultimately led to the enactment of those laws which extinguished the important woollen industry, that at one time flourished in the country.

*Wm. III., though yielding to his Parliament, in their attempt to crush the woollen trade, was far from being an intolerant monarch, and it was not until the reign of Queen Anne that penal laws, against the Roman Catholics, were enacted; and that the linen trade came to be regarded as a Protestant industry, and as such deserving of encouragement. Arthur Young, commenting on the religion of Ireland at this time, says—"Flushed with success, after the victory of the Boyne, and animated with the recollection of recent injuries, it would not have been surprising, if the triumphant party had exceeded the bounds of moderation towards the Catholics; but the amazing circumstance is that the great category of persecuting laws was not framed during the life of that monarch, who wisely was a friend to toleration, but during the next reign, and that such a system should have been embraced, six or seven years after the King's death, is not easily accounted for."

ARTHUR YOUNG, an English gentleman, who made a tour through Ireland between 1776 and 1779, and compiled a large vol. on the state of the country at that period, writing on this subject says :—The Earl of Strafford Lord Lieutenant in Charles I. reign passed several laws, and took various measures to encourage the linen manufacture, insomuch that he has by some authors been said to have established it originally. At the end of the last century, in king William's reign, it arose to be an object of consequence, but not singly so, for it appears from a variety of records, in both kingdoms, that the Irish had then a considerable woollen manufacture for exportation, which raised the jealousy of the English manufacturers in that commodity so much that they presented so many petitions to both lords and commons, as to induce those bodies to enter fully into their jealousies and illiberal views ; which occasioned the famous compact between the two nations brought on in the following manner.

On 9th June, 1698, the Earl of Stamford reported from the Lords committees (appointed to draw up an address to be presented to his Majesty, relating to the woollen manufacture in Ireland) the following address. (*vis.*)

'WE, the lords spiritual and temporal in parliament assembled, do humbly represent unto your Majesty, that the growing manufacture of cloth in Ireland, both by the cheapness of all sorts of necessities of life, and goodness of materials for making of all manner of cloth, doth invite your subjects of England, with their families and servants, to leave their habitations to settle there, to the increase of the woollen manufacture in Ireland, which makes your loyal subjects in this kingdom very apprehensive that the further growth of it may greatly prejudice the said manufacture here ; by which the trade of this nation and the value of lands will very much decrease, and the numbers of your people be much lessened here ; wherefore, we do most humbly beseech your most sacred Majesty, that your Majesty would be pleased, in the most public and effectual way, that may be, to declare to all your subjects of Ireland, that the growth and increase of the woollen manufacture there, hath long, and will ever be looked upon with great jealousy, by all your subjects of this kingdom : And if not timely remedied may occasion very strict laws, totally to prohibit and suppress the same, and on the other hand, if they turn their industry and skill, to the settling and improving the linen manufacture, for which generally the lands of the kingdom are very proper, they shall receive, all countenance, favour and protection from your royal influence, for the encouragement and promoting of the said linen manufacture, to all the advantage and profit, that kingdom can be capable of.

To which the house agreed.'

"It is ordered by the Lords spiritual and temporal in parliament assembled, That the Lords, with white staves, do humbly attend his Majesty with the address of this house, concerning the woollen manufacture in Ireland.

10th June, 1698:—"The lord Steward reported his Majesty's answer to the address, to this effect. (*vis.*)

THAT his Majesty will take care to do what their lordships have desired.

PETITION FROM THE ENGLISH HOUSE OF COMMONS TO WM. III.

30th June, 1698 :—"Most Gracious Sovereign,

"WE, your Majesty's most dutiful and loyal subjects, the Commons in parliament assembled, being very sensible that the wealth and power of this kingdom do, in a great measure, depend on the preserving the woollen manufacture, as much as possible entire to this realm, think it becomes us, like our ancestors, to be jealous of the establishment and increase thereof elsewhere; and to use our utmost endeavours to prevent it.

"And, therefore, we cannot without trouble observe, that Ireland, is dependent on, and protected by England in the enjoyment of all they have; and which is so proper for the linen manufacture, the establishment and growth of which there would be so enriching to themselves, and so profitable to England, should of late apply itself to the woollen manufacture, to the great prejudice of the trade of this kingdom; and so unwillingly promote the linen trade, which would benefit both them and us.

"The consequence whereof, will necessitate your parliament of England, to interpose to prevent the mischief that threatens us, unless your Majesty, by your authority and great wisdom, shall find means to secure the trade of England, by making your subjects of Ireland to pursue the joint interest of both kingdoms.

"And we do most humbly implore your Majesty's protection and favour in this matter; and that you will make it your royal care, and enjoin all those you employ in Ireland, to make it their care, and use their utmost diligence, to hinder the exportation of wool from Ireland, except to be imported hither, and for the discouraging the woollen manufactures, and encouraging the linen manufactures in Ireland, to which we shall always be ready to give our utmost assistance."

Resolved, That the said address be presented to his Majesty by the whole house.

2nd July.

HIS MAJESTY'S ANSWER.

"GENTLEMEN,

"I shall do all that in me lies to discourage the woollen manufacture in Ireland, and to encourage the linen manufacture there; and to promote the trade of England."

Thursday, 27th September, 1698.

Part of the Lord Justices Speech to the Irish Parliament.

"Amongst these bills there is one for the encouragement of the linen and hempen manufactures. At our first meeting, we recommended to you that matter, and we have now endeavoured to render that bill practical and useful for that effect, and as such we now recommend it to you. The settlement of this manufacture will contribute much to people the country, and will be found much more advantageous to this kingdom than the woollen manufacture, which being the settled staple trade of England, from whence all foreign markets are supplied, can never be encouraged here for that purpose, whereas the linen and hempen manufacture will not only be encouraged, as consistent with the trade of England, but will render the trade of this kingdom both useful and necessary to England."

The Commons of IRELAND returned the following answer to the speech from the throne.

"WE pray leave to assure your Excellencies that we shall heartily endeavour to establish a linen and hempen manufacture here, and to render the same useful to England, as well as advantageous to this kingdom, and that we hope to find such a temperament in respect to the woollen trade here that the same may not be injurious to England."—And they passed a law that session, commencing 25th March, 1699, laying 4s. additional duty on every 20s. value of broad-cloth exported out of Ireland, and 2s. on every 20s. value of serges, baize, kerseys, stuffs, or any other sort of new drapery made of wool, or mixed with wool (friezes only excepted) which was in effect a prohibition. And in the same session a law was passed in England, restraining Ireland from exporting those woollen manufactures, including frieze to any other parts except England and Wales.

D

ARTHUR YOUNG adds:—"The addresses of the two Houses to the King carry the clearest evidence of their source, the jealousy of merchants and manufacturers; I might add their *ignorance* too. They were dictated upon the narrow idea that the prosperity of the woollen fabrics of Ireland was inconsistent with the welfare of those of England; it would at present be fortunate for both kingdoms if these errors had been confined to the last century. There is an equal mixture of falshood also in the representations; for they assert that the cheapness of necessaries in Ireland drew from England the woollen manufacturers, but they forgot the cheapness of labour in Ireland, to which no workman in the world ever yet emigrated. The Irish were engaged in various slight fabrics not made in England; but had they been employed on broad cloth for exportation, the English manufacturers would well have bore it, they did at that time and afterwards bear a rapid increase of the French fabrics, yet flourished themselves. We have had so long an experience of markets increasing with industry and inventions that the time ought to have passed away long ago for viewing competitors with the eye of jealousy."

1699.—The Act, which levied duties on wool and woollen goods, having been evaded to a large extent, it was found necessary to limit the places of export; accordingly an Act was passed this year by which these goods could only be shipped from the ports of Dublin, Drogheda, Waterford, Youghal, Kinsale, and Cork, to the ports of Bridgewater, Bristol, Bideford, Minehead, Milford-haven, Chester, and Liverpool, under forfeiture of ship and cargo, and £500 penalty.

The revocation of the Edict of Nantes (in 1685) having driven a large number of Protestant families from France at this period, very many came to this country; amongst them were skilled workmen, and weavers of wool, silk, and flax. The immigration of these people was specially advantageous to the linen trade, which soon after exhibited a considerable extension by the fresh blood thus infused into it. A great many of these weavers, and their families, came to the north of Ireland, and settled about Belfast, Lurgan, and Lisburn. In this last-named place, which was their great centre, they commenced their weaving operations, and soon greatly advanced the manufacture of cloth in this country, by the improved methods they introduced.

Louis Crommelin, one of these French settlers,* who afterwards became a very distinguished person, owing to the part he took in promoting and improving the trade, wrote an account of the position in which he found it, and the means he had adopted for

*Crommelin at first fled from France to Holland, and while there became personally acquainted with William Prince of Orange. After the latter was raised to the British throne a correspondence was kept up by the King with his old friend, and in 1698 Crommelin was induced by his Majesty to come to Ireland, and take charge of all the Huguenot colonies.

its extension. He stated that having come over to the north of Ireland, with his son, after making a survey of various localities he selected Lisnagarvey (now Lisburn) as the best. Afterwards, owing to the encouragement given him, he brought over from Holland a considerable number of the French artisans who had settled there, and also a large number of spinning wheels and looms of a better description than had been previously in use in Ireland. These people founded a colony in Lisburn, where they erected a church of their own, and had a French chaplain to conduct the services. The Crommelin family having removed much of their wealth out of France, before the troubles came upon the Protestants of that country, were not only skilled in the method of spinning and weaving, but were able to bring over a considerable amount of capital, and it is stated that Louis Crommelin expended £10,000 in pushing on the trade. King William granted him a pension of £200 a year, and he not only enjoyed the personal favour of his Majesty, but received a vote of thanks from the Irish Parliament in 1707 for his exertions in promoting the linen industry.

1700.—The Commissioners of Trade having recommended King William to allow Crommelin £800 per annum for ten years, being interest at 8 per cent. on the £10,000 which he had laid out, the King complied with the recommendation. A patent was also granted this year to those French people who were to settle in the kingdom, and instruct the Irish in improving their linen and hempen manufactures.

In Crommelin's essay (published in 1705), we find a sketch of the position of the trade, in some of its departments, at the time he came to this country. He says—

"The people are entirely ignorant of the mysteries relating to the manufacture. . . . The flax being managed by women altogether ignorant as to their choice of the seed or soil, for which reason their flax is too short, and unfit for making good yarn; they do not know when or how to pull their flax, whereby their seed degenerates, and their flax wants strength and substance. . . . They have no judgment when or how to water or grass their flax, so as to give it a natural colour; and what is yet worse than all, they constantly dry their flax by the fire, which makes it impossible to bleach cloth made of their yarns; for let all the skill and judgment of the world be used to bleach cloth made of different sorts of flax, you can never bring it to a good colour; for till such time as it is woven and bleached, the best artist in nature cannot discover the mischief. . . . They also use, in cleaning their flax, things which they call "breaks," which I can in no way approve of. . . . They spin their long and short flax athwart, which is extremely preposterous, as the flax cannot be spun fine; so the linen is cottony. . . . The wheels used in spinning are turned by the foot, and have two cords, one going round the wheel, and the whirl of the spindle, and the other going round the wheel, and whirl of the spool, which overtwists the thread. Their manner of reeling yarn is one of the greatest grievances, as many honest, industrious men are undone by the deceitful methods now used by the crafty and unfair people in this particular; as for instance, there is no standard for the measure

of reels, and everybody uses such reels as they think fit ; for which reason a stranger to the market is imposed upon to his ruin. The cuts and hanks are reeled by several threads, through laziness or wickedness, to the utter ruin of the poor dealers who buy yarn, and think they have good and marketable goods for their money ; but find that the whole hank ravel together, and becomes entirely unserviceable, or at the best so troublesome to wind that it is as eligible to lose it as it is to spend so much time and pains to wind it. They ought to mark each cut, or six score threads, as they reel them, and not afterwards, as they now do ; which they might do without difficulty. They do likewise intermix, in one and the same hank, yarn of several degrees of fineness, which is a cheat intolerable to buyers. . . . The looms generally employed in this kingdom for the making of all sorts of linen cloth (excepting diaper and damask) are looms properly disposed, and invented for the making of woollen cloth (save only that they changed the gear, and wrought promiscuously linen and woollen therein) ; therefore, it is impossible to use one and the same loom to both material with good success. . . . The reeds are uneven and too thick, . . . and they make a stuff, of water and meal, without judgment, wherewith they stiffen their warps ; and the cloth is made too thin and sleazy ; and woven where the weather affects it. . . . The manner of mixing their ashes and yarns together in the keeve, purely through ignorance, or laziness, makes their yarn fret and cotton for ever."

Crommelin got up a bleach green at Lisburn on the improved plan with which he was acquainted, and he with the small colony referred to, in the course of twelve or fourteen years, effected considerable improvements in the linen manufacture.

The patent, however, of William III., granting Crommelin £800 a year of a subsidy for ten years, over and above the pension, was, owing to the King's death, not carried into effect, and in Queen Anne's reign Crommelin complained that the subsidy was reduced to £400, which only gave him about four per cent. on his capital instead of eight. The amount was afterwards increased to £500 per annum.

A colony of Huguenots settled at Waterford in 1693, and carried on the manufacture of linen cloth there ; but owing to various causes the manufacture did not seem to thrive to any extent out of Ulster.

1701.—At the close of the seventeenth century the English Parliament began to show encouragement to the linen trade, and in 1701 an Act was passed for this purpose. But as the death of William III. took place the following year no steps were taken to put this Act into operation.

1710.—In the reign of Queen Anne a new Act was passed, following up the action taken in the previous reign, and with a view to promote the growth of flax in Ireland, and improve the manufacture of linen and hemp. By virtue of this Act, certain duties, granted by former Acts for the encouragement of the linen manufacture were continued, and certain other and additional duties were also granted for the same purpose. The Lord Lieutenant of Ireland was enabled "to appoint certain Trustees for the disposal

and management of the said duties, according to certain trusts and powers ; the Trustees to consist of an equal number of persons in each of the four provinces in the kingdom, and to settle and adjust such matters as may be most reasonable and conducive to the establishing and carrying on the said manufacture in this kingdom, and for preventing all abuses that might happen in the same."

Under the authority of this Act, the Duke of Ormonde, Lord Lieutenant, issued a warrant on 6th October, 1711, appointing a number of noblemen and gentlemen in each of the provinces to act in the capacity of Trustees. In Leinster, Munster, and Connaught eighteen were appointed in each, and the same number also in Ulster, the names of the latter being—The Earl of Mount Alexander, Earl of Abercorn, Viscount Mountjoy, Viscount Masserene, Lord Conway, Edward Southwell, Thomas Coote, Charles O'Neill, Joshua Dawson, Dr. Marmaduke Coghill, Wm. Brownlow, Samuel Waring, Hawkins Magill, Matthew Forde, James Topham, Charles Campbell, Robert Clements, and Michael Ward.

The Board was formed principally from among the Lords and Commons of the Parliament of Ireland, their rank and influence in the country being the chief guarantee that the trusts would be properly administered.

From this period a new era opened for the trade, and we shall take the commencement of it as furnishing fresh material for a new chapter on our staple industry.

CHAPTER IV.

From the formation of the Irish Linen Trade Board to the
Legislative Union with Great Britain.



THE creation of the Board of Trustees of the Linen and Hempen Manufactures of Ireland, in 1711, formed an important land-mark in the history of the linen trade ; and as the close of the seventeenth century witnessed the extinction of the woollen industry, except in a few localities where it still struggled for existence, the flaxen manufacture started on a fresh course, acquiring as years rolled on increased vitality.

Whatever opinions may be entertained at the present day, regarding the wisdom of granting subsidies or state aid towards developing industrial operations, it will scarcely be denied that at this particular period in the history of the linen manufacture, the fostering care of the state, considering the circumstances of the times, was a wise and judicious measure.

At that time Ireland laboured under great disadvantages, and had not material aid been liberally administered, it would have been a long and difficult struggle to compete with the manufacturers of France and Belgium, who for centuries held the leading position in the world as producers of the finest linens.

Ireland's metropolis was constituted the head-quarters of the trade, and through it, for a century, the greater portion of all the business in finished linens was carried on. Thither buyers from the English and Foreign markets resorted, until improvements in steam navigation and other facilities for communication had grown up, so that this centralization was no longer endurable.

The Trustees set to work in right earnest, and held their first

meeting in October, 1711, at which the following resolution was passed :—" That the seed merchants of the city be sent for, and spoken to concerning the importing of hemp and flaxseed."

The Board, having first of all taken steps regarding the seed, imported a large supply from Holland and Russia. Next they induced well experienced Dutchmen to come over to Ireland, and these were appointed to superintend the culture of flax on the most approved method. They also distributed funds to purchase implements and weaving utensils ; scutch mills were erected, and bounties and premiums were given in various ways, as will be afterwards detailed, thus using their extensive powers to encourage by every means this industry.

County workhouses were then in existence in several parts of Ireland ; some of the masters of these institutions applied for situations as itinerant flax and hemp instructors, but the Board did not consider it judicious to employ them, especially as the applicants expected to get the salary of the new office in addition to the one they held.

The annual revenue which the Board had under their control fluctuated a good deal in amount, but between duties appropriated to their use, for the benefit of the trade, as well as direct Parliamentary grants, it appears that from 1711 to 1777 they had received over a million and a quarter sterling, and that about the last-named year they were disbursing some £33,000 per annum.

The formation of this patriotic Board, at this period of our national history, was productive of much benefit to the country, and though many abuses subsequently crept in, and its funds were often carelessly administered, there can be no doubt that a considerable stimulus was given to the trade. By monetary assistance to men of ability, who required capital to carry on their business, it not only pulled up in the race with continental countries, but before the Board passed out of existence, the Irish linen trade had been brought to so important a position that its fabrics were fast displacing the products of all other linen-producing countries in the markets of the world.

Another very important power vested in this Board related to the appointment of persons to examine all white cloth before being offered for sale ; to measure same, and to stamp the webs with a seal. White goods were at first dealt with, and the seals put upon them were a warrant as to the genuine character of the linen.

1719.—Accordingly in this year the act 6 George I., cap. 7, was passed ; section 7 related to the appointment of a lapper, whose duty it was to measure, examine, stamp, and lap or fold up the web.

The section ran as follows :—

“ And for the more effectual preventing of frauds and abuses, in making and bleaching of linen cloth, and bringing the same into better repute, be it enacted, that it shall and may be lawful to and for the Trustees appointed for encouraging the hempen and flaxen manufactures of this kingdom, or any five or more of them, to licence and appoint such fit and proper person or persons in such places of this kingdom as they shall judge most convenient, to view, examine, and measure all and every such piece or pieces of linen cloth, as shall be produced and offered to him or them; and if such cloth appears to be merchantable, and pursuant to the good laws for regulating the linen manufacture, in force in this kingdom, then, and not otherwise, such person or persons licensed to be lappers, as aforesaid, shall and may lap, and make up the same, and mark thereon the number of yards each piece containeth in length; and seal or stamp both ends thereof with the name of such lapper, and the county in which he resides, or such other impression as the said Trustees shall think fit and appoint; for all which such lapper shall and may demand and take the sum of twopence, and no more, unless he beetle the same, and then one penny more, over and above the said twopence.”

To carry out the provisions of this Act, the Board drew up a code of instructions for these lappers, and divided them into two classes—public lappers and private lappers—their regulation with regard to the latter being contained in the following minute, passed 16th January, 1719 :—

“ If anyone who keeps a bleach yard, and gives the Board satisfaction that he is qualified to be a lapper, and applies for a stamp and commission, they will appoint him; provided that he lap up and stamp no cloths, but such as are bleached in his own bleach yard, except there be no public lapper within six miles of him.”

1720.—The Board established this year spinning schools in each province, and provided wheels and reels for the scholars. The mistress of each school had £10 a year, besides certain profits arising from the sale of yarns. She was to pay the spinner fourpence for each hank of eight hank yarn; sevenpence for twelve hank yarn; and elevenpence for twenty hank yarn. Hemp spinning schools were also started, and as a liberal bounty was paid by the State for the encouragement of canvas and sailcloth productions, those hemp schools became objects of attention on the part of the Trustees. Some matters were carried with a high hand by these functionaries, as the following order, given to the County Inspector, will show :—“ You are to see whether any person, who has not served an apprenticeship of five years to the trade, shall *presume to weave linen cloth*, and when such a person is found, you are to bring him before the next justice of the peace, and punish him according to law.”

1730.—Macpherson records that during the month of May this year, the imports into London of fine linen from Holland amounted to 66,286 yards, and Irish linen 179,114 yards.

A writer about this time states that the population of Ireland was computed to amount to, in 1672, 1,100,000; in 1684, 1,200,000; but soon after King William reduced the country to subjection the population had fallen to about 1,040,000 (occasioned doubtless by so many Catholics leaving the country, owing to the destruction of the woollen trade and other causes); but in 1725 it rose to 1,670,000, and about 1733, owing to the encouragement given to the Protestant settlers, and by the erection of schools for the working classes, the population had grown to about 2,000,000, of which it was estimated 600,000 were Protestants.

1739.—The embargo laid upon woollen manufactures, previously alluded to, necessarily left on hand a large quantity of the raw material, which could not all be consumed at home; considerable quantities were therefore, in contravention of the various Acts, clandestinely sent out of Ireland, chiefly to foreign ports. An Act was passed this year abolishing the duties which had been levied on the export of woollen yarns, and increasing the ports to fourteen from which woollen goods might be shipped.

1741.—The increase in the Irish linen trade appears by this time to have greatly alarmed all the foreign linen countries, for it appeared that, whilst at the accession of William III. Ireland did not export more than the value of £12,000, in 1701 the total was £14,120, and in 1706 there were 530,858 yards sent away, valued at 10½d per yard; and in 1741 7,207,741 yards of linen, and 21,665 cwt. of yarn, were exported, the value of which was half-a-million sterling.

The observations of Sir William Temple, made sixty years previously respecting the linen trade, appear to have been verified in a remarkable manner. Writing in 1681, he says—"No women are apter to spin linen thread so well as the Irish, who labouring little in any kind with their hands have their fingers more supple than other women of the poor condition amongst us, and this may certainly be advanced and improved into a great manufacture of linen, so as to bear down the trade of both France and Holland; and draw much of the money, which goes from England to those parts, into the hands of his Majesty's subjects of Ireland, without crossing any interest of trade in England; for besides what has been said of flax and spinning, the soil and climate are proper for whitening, both by the frequent brooks and also winds in that country."

1742.—The British Parliament this year laid a duty of 2s 10d on every web of foreign linen imported; and established a bounty of one penny a yard on all British and Irish linen exported. Five years afterwards threepence per yard was given as bounty on the export of all goods valued from one shilling to one-and-sixpence per yard.

1760.—The writer of an essay at this time thus refers to the Irish Board:—"In this reign (Geo. II.), and not before, our linen manufacture, in many respects one of the most profitable branches of our national commerce, had received all the encouragement from Royal bounty and Parliamentary sanction that could be reasonably hoped for. Persons of the highest rank, dignity, and fortune were appointed Trustees for the propagation, encouragement, and diffusion of this beneficial trade throughout the respective provinces. The Linen Hall was erected in Dublin, under as just and well arranged a system of regulations as any commercial house in Europe. The north of Ireland, which owing to the want of industry business and tillage had been almost neglected, now began to wear an entirely new aspect. Ulster became a populous scene of improvement, traffic, wealth, and plenty; and is at this day a well planted district, considerable for numbers of well affected useful and industrious subjects. We no where, abstracted from our own country, met with a set of such pious patriots (as the ever honourable Dublin Society) who from their funds advanced this country in general in every degree and branch of industry and improvement, and inspired with sentiments truly public and social, munificently rewarding their countrymen of whatever denomination without favour or distinction."

1761.—Scotland in the meantime had progressed considerably in her linen manufactures, and through Government assistance her trade in this branch had increased about five times what it was in 1728. It was assumed that this increase was telling against the Irish trade to some extent, for the exports from Ireland showed a falling off compared with 1757.

To encourage the manufacture of linen cambric cloth—a species of fine linen for which Cambrai, in France, had long been famous—the Board granted a sum of £1,375 to assist in establishing a manufactory at Dundalk, but the enterprise was not a successful one.

1764.—The provisions of the act of 1719 regarding the sealing of white cloth, were subsequently extended to embrace the brown or "green cloth," exposed for sale in the country markets, and several acts were passed bearing upon this branch of the subject, but the one which was finally agreed upon, as embracing all the provisions necessary to meet the case, was the act of 3 George III., chap. 34, and which received the Royal assent on 12th May, 1764.

Under this act the Trustees had powers to appoint sealmasters of brown linen, the section running as follows:—

"For the more effectual prevention of all frauds and abuses in the said manufactures, the Trustees, or any five of them may appoint during their pleasure, such fit and proper persons, and in such places as they shall judge convenient, to be

sealmasters of brown and unbleached linen. . . . appoint rules to direct and govern them require security by bond from them . . . may administer oath of office and punish them for neglect of duties and recal their seals, &c."

The duties of sealmasters were defined as follows :—

"Every sealmaster of brown linen must carefully view, examine, and measure every piece of linen cloth that shall be produced and offered to him; and if merchantable, and in every respect conformable to law, he must fold and stamp the said piece as therein directed and no sealmaster shall buy, or suffer to be bought, in his house, any brown linen that shall be brought to him to be sealed nor sell, nor lend, nor suffer his seal to be used by any other person whatsoever, under pain of forfeiting £20. . . . And he may demand and take for every piece of unbleached linen, containing twenty-five yards and under, the sum of one penny, and no more, and so in proportion for a greater quantity."

The penalties against selling unsealed linen were contained in the following section :—

"No person shall sell or expose for sale, or buy any green or unbleached linen, or hempen cloth, that shall not at the time thereof be sealed and marked as before directed, under pain of forfeiting the sum of £5 for every such piece."

At first these acts met with violent opposition on the part of the weavers, who assembled in tumultuous mobs chiefly about Lisburn, and committed various outrages. They seized the linen drapers, who were about to dispose of their webs, and forced many of them to swear they would not recognize the sealing of the brown goods; they attacked and maimed many others, even the Earl of Hillsborough narrowly escaped the fury of a mob on one occasion. They attacked the house of Mr. Williamson, the proprietor of an extensive bleach green at Lambeg, and only desisted from destroying his house on finding it was well defended. They then attempted to destroy his bleach green, but were prevented by similar precautions.

This is only a sample of the senseless opposition on the part of the weavers, against regulations which were intended as much for their own protection as anything else. Before this act was passed they were entirely at the mercy of the buyers, many of whom used no just standard of measurement for their work, and very often when a proper yard-stick was not at hand they would cut a stick out of the nearest hedge, and which was often an inch or two longer than the statute yard. In measuring, also, it was stated that by sleight of hand they could often take from half to a whole yard above the just measure, and as the breadth of the thumb was allowed in each yard, anyone favoured by nature with an exceptionally large one was placed on the high road towards attaining a fortune.

But in a very short time the weavers, seeing that this opposition to the Board was not only fruitless but contrary to their best interests, quickly came to a state of repentance for the acts of folly and wickedness previously committed.

We extract from official records of the Board the following addresses, which exhibit the penitential frame of mind they afterwards showed.

One of them is entitled :—"The thankful address of the Towns of Banbridge, Loughbrickland, Newry, and counties adjacent, &c." :—

"Most worthy Gentlemen,—We beg leave to return you our most hearty and sincere thanks for the many good laws and regulations you have made for the good of the linen trade, and especially for your late good Act in causing all brown linen to be sealed.

"We indeed confess there were some hot-headed persons amongst us who did not at first see the general good the honourable Board designed in this good and just law ; but a very short experience has fully convinced us of the benefit we now reap by it ; for we find we have been greatly imposed upon by too many of the drapers, when they had the measuring of our cloth in their own power. In several markets, too, in this and other parts of the country, they had a custom that they would have half a yard, or a yard, or two yards for nothing into the piece ; and, having all in their own power, some of them often defrauded us as much more by too long measure ; and they would not measure our cloth with the statute yard, but in all markets they had a yard considerably longer ; thus, in what they took by way of gift, they had a piece or two of cloth off us for nothing in every twenty-four pieces they bought. But now, thank God, and the honourable Board, and all the worthy members of it, who had the interest of their country so much at heart, we are relieved from all these heavy and unjust burdens, &c."

Another address, from the town and neighbourhood of Lisburn, thus proceeds :—

"May it please your Honours,—We should have been amongst the first to express our sincerest gratitude and thankfulness for the happy regulations you have made in our trade, had not grief and shame for the late enormities committed in, and about this place, withheld us from presuming to lift up our faces before you and the public.

"When we consider that it was here, and here alone, where the laws you had ordered to be enacted were so madly opposed ; when we plainly see (as we now do) the benefits intended for us by the same ; but, above all, when we reflect on the manner in which a truly noble and right honourable member of your Board, the great friend of our trade, was treated amongst us, our faces are not only covered with shame, but our hearts are penetrated with concern and grief. And when we also consider the great good that was then a-doing, and which, notwithstanding our unworthiness, has since been done for us ; and the lenity and mercy that has since also been shown, in return for indignities and base ingratitude, we are so confounded that we know not what to say, nor how to address ourselves to your honours.

"Suffer us, however, humbly to assure your honours that it was only the lowest and most ignorant of our body who, by being deceived by wicked falsehoods propagated amongst us, were brought to be concerned in those shameful disturbances, in order, as they weakly believed and imagined, to save themselves and their families from oppression and ruin."

Owing to the great improvements which, in 1764, a Lurgan carpenter, named Thomas Turner (a special protégé of Louis Crommelin), made in the old spinning wheel, yarns of a higher count could now be spun, and a child was able to produce twice the quantity which a grown person previously did with the ancient Irish machine; an advantage of no inconsiderable importance in these days when all the yarn spun was by hand labour.

In this year it is also recorded that Dr. Ferguson, of Belfast, received from the Linen Board a pension of £300, for the successful application of lime for bleaching purposes, a discovery of very considerable importance to the trade. A few years after this, he discovered the use of sulphuric acid as an agent in the bleaching process, and one which was much more expeditious in its action than the butter-milk which previously, and from time immemorial, had been employed.

Whilst it was conceded that the use of lime for bleaching was a valuable discovery, much difference of opinion soon after arose regarding its use, it having been found in practice too dangerous an agent, except in the most skilled hands. Many instances having arisen showing the injury which cloth sustained where the manipulations were not most carefully attended to, an Act of Parliament was passed prohibiting the use of this agent altogether.

It was not until the close of this century, when chlorine, in combination with lime, was found a superior chemical, that its use was sanctioned, and soon after became the recognised agent in the bleaching of cloth and yarns.

Some years before this, *William Coulson, the founder of the Lisburn damask factory, commenced work with a small number of looms, which he erected in a large building convenient to the County Down bridge in that town. Reference is made further on to this important branch of the trade.

1772.—From the records at this time it appears that Irish linen to the extent of 2,000,000 yards was during this year sent to London, and of this quantity 776,625 yards were sent from Belfast. Besides the direct shipments to London, large quantities were sent to Chester to be forwarded to London.

Dulness in trade set in about this time, and a desire to emigrate seemed to take possession of the people throughout the north, caused by a falling off in demand in the labour market.

It appears from official returns that the exports of linen manufactures for 1773 were more than a fourth less than what they were in 1771. The consequence was that three-fourths, and in some places more than this proportion of looms throughout the north

*Ireland and her staple manufactures.

were silent. This so alarmed the weavers that a great exodus immediately set in. From Belfast alone, it is stated in the Parliamentary reports, that between 1771 and 1773 about 3,541 persons left for America; about 6,000 left the port of Derry, and from Ulster alone at least 30,000 people emigrated, about one-third of whom were weavers, many of them carrying their utensils of trade with them. The depression in the linen trade was, however, not confined to Ireland; England and Scotland came in for their share. From evidence given before a committee of the English House of Parliament in 1774 it appeared that 600 out of 1,800 spinners had emigrated from one district in Sutherland. Cloth which sold in 1769 for 12¼d per yard fell to 9⅓d in 1774, and in four shires in Scotland, which included Glasgow and Paisley, out of 6,000 looms 2,500 were employed, and in general one-third or more of the looms were idle throughout Scotland and the north of England.

This decline of the linen industry has been stated by some writers to have arisen from an over-production, which, for several years, had previously characterised the trade, and ultimately led to a glut of linen goods in all the markets. Whilst these stocks were working down, business was seriously curtailed, many and heavy losses being sustained. The disputes between England and America, which ultimately led to the independence of the United States, had also much to do with the depression in trade at this period.

1775.—Demand began to revive slowly during this year, and Ireland was allowed to clothe and accoutre that portion of the army which was paid for by her, though serving out of this country. As a further encouragement to grow flax, an additional bounty of 5s per hhd. was allowed on flaxseed imported into Ireland during 1776 and 1777, and this bounty was afterwards extended down to 1780.

Before the war with America, flaxseed was imported from that country to the extent of about 255,000 bushels annually; but after the outbreak of hostilities the necessity of saving the seed of the plant was forced on the farmers of this country, and large quantities were preserved, which soon proved highly successful.

ARTHUR YOUNG in his travels through Ireland in 1776 gives passing sketches of the linen trade in the various towns he visited, and though he looked with no favourable eye upon the manufacture (alleging that it was carried on to such an extent in Ulster that agricultural pursuits were seriously neglected), the details he has supplied, and of which we make a few extracts, will be interesting, in comparing the state of the manufacture now with what it was exactly one hundred years ago.

In *Armagh* he says—"The manufacturers are generally Protestants; and their wives drink tea for breakfast. The price of cloth woven here is from 10^d to 11½ a-yard, brown, the state in which they sell it. The fixed price for weaving it is 2½d per yard. . . . When the weaver has made his piece of cloth he goes into the market of *Armagh* on a Tuesday, and sells it to the draper, as he would any other commodity. . . . The draper generally has a bleach green, and the expense to him of bleaching is £4 10s to £5 a pack of 30 pieces, or 3s to 3s 2d a piece. After bleaching he either sends it to factors in London or Dublin, or sells it at the Linen-hall in Dublin. Some go over to Chester for themselves and dispose of it there. In London he gives seven months' credit; in Dublin two or three, but if he goes himself to the Hall he gets part ready money. The London factor has six per cent. for selling it and advancing the money as soon as sold, and a half per cent. for warehouse room and insurance from fire. . . . The spinners in this district earn from 3d to 4d per day, and weavers 10d to 1s 4d.

The weavers in the country on the road to *Lurgan* keep a pack of hounds; every man has a hound, and joining them together they hunt hares. The pack is no sooner heard than all the weavers leave their looms, and away they go after them by hundreds. This much amazed me, but I was assured it was very common.

At *Lurgan* Mr. Brownlow walked with me to the market, to show me the way the linens were sold. The cambrics are sold early, and through the whole morning, but when the clock strikes eleven, the drapers jump upon stone standings, and the weavers instantly flock about them with their pieces; the bargains are not struck at a word, but there is a little altercation whether the price will be one halfpenny or one penny a yard more or less, which appeared to be useless. The draper's clerk stands by him, and writes his master's name on the pieces he buys, together with the price; and giving it back to the seller he goes to the draper's quarters and awaits his coming. At twelve it ends, and then there is an hour for measuring the pieces and paying the money, for nothing but ready money is taken, and this is the way the business is carried on at all the markets. 3,000 pieces are sold a week at 35s each on an average, or about £5,250 equal to £273,000 per annum, and this all made in a circumference of not many miles.

At *Waringstown* the linen made is from 8⁰⁰ to 24⁰⁰, yard wide, and 25 yards long. 49 hanks of yarn will make a 14⁰⁰, which sells at 20d per yard—brown. The weaver is paid 10s for weaving it, and he will weave it in nine days. Much done by drapers advancing the yarn and paying for the weaving. 8⁰⁰ 2½d a yard; 10⁰⁰ 3½d; 13⁰⁰ 3½; 16⁰⁰ 7d; 18⁰⁰ 10½; 24⁰⁰ 17½d. When weaving fine linen going from it to the plough or spade hurts their hands so much that they do not recover it for a week. . . . Bleach greens sometimes belong to the drapers, and sometimes not.

The bleaching process is then described:—

When at *Lisburn* the Bishop of Down was so obliging as to send for an intelligent linen draper to give me such particulars as I wanted about the manufacture here. About this place chiefly fine cloth from 14⁰⁰ to 21⁰⁰ is made. The spinners are generally hired by the quarter, at from 10s to 12s, with lodging and board, and engaged to spin 5 hanks of 8 hank yarn in a week. . . . For 18⁰⁰ linen a woman spins 6 hanks a-week, which weigh a pound; at the price of 8d per hank . . . The drapers advance the yarn, and pay for the weaving by the yard.

Reached *Belfast* on 31st July, 1776. The town and trade are described as follows:—*Belfast* is a very well built town of bricks, they having no stone quarry in the neighbourhood. The streets are broad and straight, and the inhabitants amount to 15,000, and make it appear lively and busy. The public buildings are not numerous, nor very striking, but over the Exchange Lord

Donegall is building an assembly room. . . . His Lordship is also building a new Church. . . . The town entirely belongs to him. Rent of it £20,000 a-year. His estate extends from Drumbridge, near Lisburn, to Larne—20 miles in a right line, and is 10 miles broad. The number of ships belonging to Belfast are about 50 sail, from 20 to 300 tons. A vessel of 200 tons, half-loaded, may come to the quay, there being 9½ to 10 feet of water. In 1771 when the linen trade was brisk there were 300 looms in Belfast, but in 1774 there were only 180.

Belfast being the place where the emigrations were greatest, I made inquiries concerning them, and found that they have for many years had a regular emigration of 2,000 annually, but owing to the decline in the linen trade 4,000 left in 1773.

Prices of provisions at Belfast.—Potatoes 9d a-bushel; Salmon 2d a-lb; Lobsters 6d each; Plaice, ¾d per lb; Beef, 2¾d, Mutton, 3d, and Butter 5d per lb; Geese 14d, Turkeys 1s, and Chickens 2½d each; Oysters 1s to 4s per hundred. Oatmeal ¾d lb; Coals 13s a-ton. Labour the year round, 1/1d in the town, and 8d a-day in the county. Spinners earned 3d a-day and weavers 1/1d."

The Irish Parliament, in 1780, to further encourage the growth of home seed, and at same time promote the manufacture of cloth, not only repealed the bounty given for importing foreign seed, but laid a duty on imported linseed oil, and applied these two funds to stimulate the exportation of cloth to foreign countries. The trade by this means was materially benefited, and in addition duties were levied upon foreign linens. The wisdom of this latter step was, however, a doubtful one, as foreigners to protect themselves placed restrictions on all English woollens.

Linen manufacturing on the Continent having been much improved, it was found very difficult at this time to compete with it. In a report by the Lords of Trade it appeared that though our trade was favoured, between bounties and duties, to the extent of about 15 per cent., yet with all this the foreigners were able to keep up a competition, especially in the fine linens; and that a small reduction in the duties would have brought them as cheap as ever to Great Britain. Having observed that our linen bounties and linen duties, though possibly in many cases exceptional in the great scale of commercial policy, have proved an essential encouragement to the Irish staple, they said, "we think it right to add that it has also been the means of forcing forward an extensive linen manufacture in Ireland, though struggling under great disadvantages as to the growth and supply of the raw material."

1780.—Potash appears to have been used for the first time as a ley for boiling yarns and cloth.

1782.—An act was passed this year (22 George III., c. 53.) repealing 6 George I., and freeing Ireland from all commercial dependence on Great Britain, for up to this period shipments to most of the British Colonies and Dependencies could only be made through English ports. The Irish Parliament, to mark their

appreciation of this favour, immediately voted 20,000 men for the British Navy.

1784.—In their great delight at the unrestricted freedom to carry on a direct foreign trade, Irish merchants at once largely embarked in the export business, and shipped considerable quantities of goods of all classes to America, and other foreign countries, forgetting, in the excitement which appeared to take hold of the trade, that a sudden and greatly increased demand did not necessarily follow the accumulation of goods in any of the markets to which these consignments were made. The consequence was that the markets abroad became overstocked, and the shipments were so slowly realised, in those days when banking facilities such as we possess were unknown, that manufacturers found themselves seriously crippled for want of capital, which was thus locked up abroad.

Though the monetary institutions of our day were unknown at the period, looking back at this distance of time it may be a matter rather for congratulation than otherwise, for had advances been readily obtained the evil of excessive consignments might have gone on unchecked for years, until a terrible disaster had perhaps fallen upon the trade, and thrown back its progress for perhaps a century. As matters stood, the evil was soon detected, and the recovery set in earlier, so that the blow was far less severe than it might otherwise have been.

A good deal of clamour was then raised, and a strong protectionist party was quickly organised who tried to get the Irish Parliament to enact protection duties, but this they refused to do; but they levied duties on British sugar, beer, wine, and printed calicoes, in order to give a preference to our own manufactures. Non-importation agreements were voluntarily entered into by the people to a large extent, and anyone found violating these agreements exposed himself to popular indignation, and if caught was liable to be tarred and feathered.

Turning to the records of the Linen Board at this time, we select a few examples to illustrate the *modus operandi* by which aid was obtained from this body towards the encouragement of the trade.

In February, 1784, M. W. presented a memorial praying aid to extend the cotton manufacture. F. Y. for aid to extend linen and cotton, M. S. and W. J. for same. W. C. H. asking a grant of 50 wheels and 20 reels, to enable him to give employment to a number of poor manufacturers. A. C. praying aid to purchase machinery to enable him to extend manufacture of crossbarred, striped, and other lawns. F. A. praying aid to extend the manufacture of linen and cotton. F. H. praying the Board to grant him four stocking

looms. M. J. and others, for a spinning and carding machine for cotton. W. & M. C., tape, thread, and garter manufacturers, praying the Board to enable them to take a number of apprentices. D. B. and others, praying for a hot and cold calender. These, and a host of others, were chiefly from spinners and weavers of the poorer class. C. O. H. asked for a number of looms to distribute among his poor tenants. H. M'C., damask weaver, for aid to extend his manufacture.

On 13th February, 1784, the Board passed a resolution which became a standing order, "That to every grant of wheels, reels, looms, jennies, and carding machines, the person to whom the same shall be granted, shall make it appear by affidavit that 20s had been added to every 50s the said grant contains." Looms were to be of value of £2 15s at least, £1 15s of which the Board contributed to persons who had obtained a grant.

Juries were appointed to examine cloth which was reported to be unmerchantable, and their verdicts were handed in to the Board, who thereupon decided what fines should be imposed. As an example, we find on 16th March, 1784, that the Board having taken into consideration the opinions of several juries appointed to examine fraudulently lapped and damaged linens :—

"Resolved, that the following seal masters of white linens be fined in the sums respectively affixed to their names for frauds committed by them in the execution of their office.

G. T. on 46 pieces tender and unmerchantable,	...	£37	7	6
S. & T. 34 „ small holes and tender,	...	17	0	0
S. & T. 45 „ mildewed and stained,	...	10	0	0
J. T. 20 „ tender and unmerchantable,	...	20	0	0
R. K. 29 „ tender and mildewed,	...	14	10	0
And on 13th April 1784 we find				
H. D. fined for passing 1 piece with concealed holes and rotten,		3	15	10½
J. D. „ 2 „ short measure,	...	4	0	0
J. J. „ 29 „ unmerchantable,	...	52	10	2

343 pieces were condemned as tender and unmerchantable, and were ordered to be cut, to prevent their being exported.

The precaution taken to prevent the exportation of bad cloth was a very wise and judicious one, and did much towards maintaining the first-class reputation which Irish linens had long enjoyed in the markets of the world.

It is much to be regretted, that owing to the rapid manner in which cloth is pushed forward at the bleach-greens at the present day, a quantity is more or less unavoidably injured ; the great whiteness to which linen is required to be brought being at the risk of damage to the fabric. These risks are sometimes borne by the bleacher, and sometimes by the owner, but in either case a

good deal of damaged cloth is thrown on the market, to the injury of the great bulk of genuine cloth, the value of which is in some measure affected. The question is one which in no small degree concerns the trade, and deserves consideration, with a view to maintain the character and value of our Irish linen.

There were eleven bleach-greens along the river Lagan in 1784. Three of these turned out 24,000 webs this year; one finished 10,000, and another bleached 8,000: two finished 5,000 each, two 4,000, and two 3,000 each. The exports of linens from Ireland amounted this year to 24,961,898 yards.

The patents which Arkwright secured for his spinning engines having expired about this time, a very considerable increase followed in the production of cotton fabrics; as cotton yarn could be spun so much more cheaply than linen, cotton goods competed to a considerable extent with the linen fabrics, and took the place of cambrics, lawns, and the finer and more expensive classes of linen goods.

About this period also the art of dyeing turkey red was introduced into Glasgow by a French artist, and a great business was in a few years developed in this branch of trade. Macpherson states that it was a disputed point whether Manchester or Glasgow had the honour of first introducing this art, as it appears that a firm in the first-named city got a premium of £2,500 from Parliament for the discovery.

1787.—A commercial treaty was concluded this year with France; the laws prohibiting the importation of French cambrics and lawns were repealed.

1791.—Improvements were effected in the mechanism of looms, by which two webs of cotton or linen could be woven at same time, another was an improved method of bleaching, by which cotton goods could be bleached in five hours.

1795.—Chloride of lime was first used this year in the process of bleaching cloth and yarns, and the discovery proved of very great value to the trade.

1796.—An active business marked the history of this year; farmers had enjoyed improved markets for their produce; the people had much better employment, and the home trade for linen goods was very favourable. Exports had run up to 46,705,319 yards, the highest ever before reached, and much above the top figures attained for twenty years afterwards. An old linen draper mentioned some years ago to a friend of the author that the brown cloth markets of 1796 were stirring in the extreme. The gentleman to whom we refer was among the earliest makers of fine cambric, and had frequently sold webs for twenty-five guineas each, or at the rate of one guinea a yard.

1798.—The exports of linen cloth fell this year, owing to the disturbed state of the country, to 33,497,171 yards, and in consequence of a greatly reduced production of cloth nearly twice the quantity of linen yarn, compared with 1797, was exported. This memorable year, with its insurrection, and all the ills consequent on such wild projects, was marked by much disaster to the trade of the country, and no branch suffered more than the linen manufacture.

The Utopian idea of uniting men of all creeds and classes in Ireland, and forming a grand political organisation to redress the evils which were then held to exist, and to effect legislative reform, occurred to some active spirits in the north a few years previously. Industry was neglected in many districts ; ploughs lay rusting in the field, and hundreds of looms ceased to ply the shuttle. At first the organisation merely sought an extension of political rights, and a fairer field of commerce, but no long time elapsed when it became evident that the ideas of the confederation were outstripped by those who afterwards joined it, until at last it drifted into an avowed hostility against British rule, and a revolt was popularly advocated.

We need not do more than make a passing reference to the results. A rebellion broke out in the spring but, owing to the vigorous steps taken by the Government, it was put down in the course of a few months. Many excesses were committed on both sides, and whilst the riot and confusion lasted trade and agriculture greatly suffered.

If the opening of this century was full of promise to the linen industry, the close was marked by difficulty and depression, but the trade in the meantime had acquired great strength, and had taken so deep a root in the country that the effects of this storm were but temporary. In a few years it again put forth fresh and vigorous shoots, and bid fair for a long time to come to hold its own against all competitors.

The political convulsion of '98 was followed by a treaty between the Parliaments of England and Ireland, which resulted in the union of the two countries under one Legislature.

In "Ireland and her Staple Manufactures" the author has graphically sketched several scenes which took place at this period, in many of which persons connected with the linen trade were mixed up.

CHAPTER V.

From the Legislative Union with Great Britain—covering the period of the Dissolution of the Irish Linen Trade Board—to end of 1840.

IT is not within the scope of this little work to enter upon or discuss the various questions raised at this period respecting the political movements which culminated in the extinction of the Irish Parliament, and consequent fusion of our Government with that of Great Britain. Whatever views may be entertained regarding the wisdom of this Act, it cannot be denied that very great commercial advantages resulted from the union of the weaker with the stronger power, and though measures of relief, and the adjustment of old grievances, were but slowly doled out, the country now enjoys unrestricted political and commercial freedom.

1805.—The staple trade had very much improved this year, so that exports of cloth were more than five millions of yards over the quantity in the previous year.

An important invention, brought out in 1801 by M. Jacquard, of Lyons, proved of very great value to the linen trade, so far as the production of damask and fancy goods was concerned. Previous to this, in the weaving of figured goods, it was necessary to employ "draw boys"—as the apprentices were called who attended the weavers—and their duty was to draw up the warp threads by means of cords or pulleys, according to the pattern indicated. Jacquard's invention superseded those draw boys, and by a system of perforated cards (cut according to the special pattern intended to be woven), strung together so as to form an endless band, which were pressed against the levers of the warp threads, raising all, except those which passed through the holes, by means of pedals, under

the control of the weaver, these cards did the work mechanically which was formerly done by the draw boy.

This system is now universally adopted for weaving all figured goods, but the description given will scarcely be intelligible without an inspection of the mechanism of the damask looms now in use.

The production of flaxen yarns by machinery had been in operation in England, and also in Scotland, from the close of the past century, and for about twenty years afterwards a considerable trade in coarse warps and wefts was carried on with Irish linen manufacturers.

The Linen Trade Board had made several attempts to introduce this system by offering premiums of thirty shillings per spindle, for all such machinery set up in any mill, but it was not until this year that we find any practical result. Prejudice, which stood in the way respecting any interference with the time-honoured system of hand-spinning, was extremely difficult to overcome, and it is not to be wondered at that an invention which threatened the extinction of the ancient art, and the throwing idle of many thousands of hands in every province, should meet with great opposition. In this country, in common with all others, hand-spinning from time immemorial had been practised by women and children in their cottages and homesteads all over the land, and the yarns were brought to the nearest towns, and there sold to the weavers; very often the females of the family spun the yarn whilst the males worked it into cloth. At this period a great deal of yarn was spun in Connaught, where the trade, so far as the coarse numbers were concerned, had become centralised; from this province these yarns were sent to Ulster for the manufacture of the coarser classes of linens, but a good deal was also sent to Scotland.

This year, however, a Cork man set up 212 spindles for canvas yarns, and so many others followed his example that in four years a considerable number of spindles were at work, all of which were driven by water power.

1809.—A sum of £20,000 having been granted by Parliament this year, "to be applied towards the encouragement of the saving of flaxseed for sowing in Ireland," the Board issued a notice of instructions respecting the claims for bounties on the saving of the seed, with a view to extend the growth of flax in Ireland, and render the linen manufacture independent of foreign countries for the supply of seed.

At this time, the gentlemen farmers stated that Irish saved seed was found equal, if not superior, to any foreign seed; and if properly saved did not degenerate. In order, however, to produce the best seed, they stated the flax straw should be stacked till February, but as this was out of the power of poor cottagers, the

saving of the seed from home fibre could only be done by gentlemen and wealthy farmers, who could afford to hold their stock from autumn till spring. The bounty for home saved seed was 5s a bushel, if taken after 1st February, or 2s 6d if taken before. The claims for bounty had to be made up on certain forms, sworn to and certified, before the amount of bounty could be claimed.

Petitions under sanction of an oath, especially in the case of poor persons, was the usual mode of making application to the Board, for a grant of public money, to purchase wheels, looms, and other appliances connected with the trade. The following will illustrate the mode of doing business :—

An application from Margaret Davitt, a female weaver, was presented to the Board, and is as follows :—

“Sheweth,—That she, this petitioner, is a linenweaver by trade, and has learned the same several years ago ; that she applied to the Right Hon. Isaac Corry three years ago, in or about the month of July, 1806, and at that time she, this petitioner, made affidavit on the Holy Evangelists, before John Duff, Esq., Justice of the Peace, that she wove two hundred yards of linen and upwards, within the space of one year, whereupon she did apply for to get a loom from the Board.

“Said petitioner began a second year, and made a second affidavit that she wrought and wove two hundred yards more of linen, and upwards, within the space of one year ; which affidavit was also sworn before the aforesaid John Duff, Esq., and given to Mr. Joseph Weir, to put it forward for petitioner, but when petitioner asked for the affidavits the said Mr. Weir told her that he mislaid the papers, and could not find them.

“And now a third time she, this petitioner, is willing to make affidavit that she wove and wrought two hundred yards of linens, and upwards, within the space of one year ; also, she, this petitioner, has learned some apprentices (as it is her common employment those many years past), and expects, with the assistance of God, to learn more yet.

“Therefore, she, this petitioner, applies herself to the Right Hon. Isaac Corry to encourage her to get a loom from the Board, and in compliance thereof she, this petitioner, will proceed to work at the weaving business ; and that she will learn more to weave during the residue of her life time, and, as in duty bound, she will faithfully fulfil said promise.

“(Signed)

Her
MARGARET + DAVITT.”
Mark.

“Margaret Davitt came this day and voluntarily made oath that the above petition is in substance true, and that she wove the quantities of linen specified.

“Sworn before me this 27th August, 1809.

“ISAAC CORRY.”

Whereupon the Board ordered—“That the sum of £6 be granted to Margaret Davitt for the purchase of a loom.”

1810.—From the records of the Board in April of this year, a County Cork firm drew a pretty large sum in the shape of premiums for erecting spindles, and for weaving cloth.

P. Besnard, a premium, in full, for manufacturing and selling, in the year 1809, 32,558 yards of duck, and 17,959 yards of sailcloth, at 2d per yard, in the County of Cork,	£420 19 6
Julius Besnard, a premium, in full, for manufacturing and selling, in the year 1809, 38,293 yards of sailcloth, at 2d per yard, in the County of Cork,	319 2 2
P. & J. Besnard, a premium, in full, for erecting in the County of Cork, in the year 1809, 264 spindles for spinning yarn by mill machinery, at 30s per spindle,	396 0 0

In May the Inspector-General reported that the claims for saving flaxseed would come to about £18,000, and the following abstract of the flax returns for 1809 show the extent sown, and the number of claimants for the bounty :—

Province.	No. of persons who raised flax.	Total acres Irish sown.	No. who claimed bounty for saving the seed.
Ulster,	55,943	62,441	11,256
Munster,	4,063	3,716	1,570
Leinster,	17,178	4,107	1,169
Connaught,	24,547	6,485	3,991
	<u>101,731</u>	<u>76,749</u>	<u>17,986</u>

The town of Drogheda had long been famous for linen manufactures, and owing to its contiguity to the metropolis, a ready market was found for many classes of goods suitable for home trade use, such as towellings, dowlas, sheetings, &c. At the present day several factories are in full work, and afford employment to a considerable number of hands.

Statistics of Drogheda trade for 1808 and 1809 show a very satisfactory state of things, though a smart falling off appears between these years.

1808.—10,649 pieces of sheetings, dowlas, sailcloth, ticken, duck, &c., sold and exported,	£103,633 10 0
— 64,226 pieces $\frac{1}{2}$ and $\frac{3}{4}$ market linen, sold at Drogheda,	256,904 0 0
1809.—5,724 pieces of sheetings, &c.,	58,574 0 0
— 51,086 pieces of $\frac{1}{2}$ and $\frac{3}{4}$ market linen,	204,344 0 0
	<u>£623,455 10 0</u>

Before the sale of white cloth became centered in Belfast—for which purpose the White Linen Hall was built—the number of cases forwarded to Dublin was very large. The returns at this time show the following comparative view of linen, received at the Linen Hall, Dublin, for one year ended 1st March, 1810, with 1809 :—

Inwards, 1st March, 1810, 10,371 boxes, &c., average value	£150, ...	£1,555,650
Do., do., 1809, 10,227 do., do.	£160, ...	£1,636,320

The boxes for 1810 were valued at £10 less, linen having fallen in price.

In the report of the Commissioners of Accounts for Ireland, appended to the transactions of the Board for 1810, charges of great mismanagement were freely made against the Board, for not properly attending to their duties; great inattention as to money matters, and deficient supervision of the officers, and the negligence and inefficiency of several of them. As regards the Trustees, this Parliamentary report goes on to say:—"The Trustees are too numerous, too fluctuating, have too great a variety of opinions, and frequently counteract each other. They seldom attend in proper numbers, they frequently, in our opinion, act in direct opposition to the law, as appears on the face of their minutes, particularly in the most essential points of making grants, and paying money. They have no emolument but such as they derive, in common with the public, from their own grants, and, therefore, cannot be expected to give due attention to the performance of so very laborious a duty." Then follow specific charges of neglect of duty on the part of officers of the Board.

It need, however, scarcely cause surprise that in attempting to nurse an important industry like this, irregularities and mismanagement should arise in administering the trusts of this department, and distributing its funds and patronage, when the Board was composed of noblemen and gentlemen scattered all over the country, practically unacquainted with the trade, and who did not go to Dublin often enough to attend to their duties. In fact, the whole machinery seems to have been kept going for a long time through the united efforts of the chief officials—viz., inspector-general, architect, and secretary. These officers had very large powers, and doubtless took things easy, making their offices as pleasant as circumstances would admit.

By means of the bounty offered for the erection of spindles the number this year appeared to have risen (from 212 spindles in 1805) to 6,369, and mills were now running at Buncrana, Ballymoney, Dungannon, Comber, Cork, &c.

1815.—At this period it appears there were five mills in Ulster, two in Leinster, and seven in Munster; but, owing to depression in trade, only one of the mills in Munster was in full work.

1816.—From the minutes of the Board, we find that in October of this year they instructed their secretary (Mr. James Corry) to make a tour of inspection throughout the province of Ulster, and to report generally on the position of the trade. From this report, dated December, 1816, we propose to make some extracts, which will give a good idea of the condition of the manufacture at this

period, and will explain the old brown cloth market system, which has been completely revolutionised since power-looms were introduced.

County Armagh.—The principal markets in this county were Armagh (which at the present day keeps up a struggling existence), Lurgan, Tandragee, and Portadown. The secretary found that the brown seals in a few instances got into improper hands, and where the hurry of the market happened to be great, and the number of sealmasters in attendance insufficient for the business to be done, the word of the weaver was too often taken as to the length of the web, and the seal had been put on before the web was measured. On all such occasions the length that was marked exceeded, as might be expected, the actual length, which the weaver afterwards strove to make good by forcibly stretching the web, and thereby injuring the fabric. The disputes at these country markets used sometimes to be so numerous as to require not only the attendance of the district inspector, but the local magistrates; for the secretary reports that "the exertions of an inspector, however active, cannot much or at all avail in any market when a magistrate is not at hand, easy of access, ready to hear and determine the mutual complaints of merchants, manufacturers, and inspectors which arise out of the transactions of a market. Those gentlemen, therefore, who devote their time and attention to these subjects may be considered the benefactors of the trade."

Among the establishments visited by Mr. Corry in his tour a brief description of a few may be interesting.

We visited the concerns of the respectable company of Messrs. Nicholson & Sons at Bessbrook, on Saturday, the 12th October, 1816. Their concerns are about three miles from Newry, and are of considerable extent. They consist of a spinning mill, a scutch mill, a hackling house, and sundry other buildings necessary to such an establishment, but they have no weaving department attached, their yarn being given out to weavers in the country. This establishment received from the Board between the years 1806 and 1809 inclusive the sum of £1,758 12s 10d by way of bounties for having erected 1,216 spindles within these periods, and the further sum of £1,811 8s 4d from 1811 to 1814 for the manufacturing of canvas and duck. Further details are then given respecting the machinery, &c.

The concerns of Mr. James Nicholson, of New Holland, near Keady, were visited. In this concern there were at this time 500 spindles, twelve frames for line, and four for tow, with the necessary preparing machinery. Weaving done throughout the country, the chief manufacture being duck.

Co. Tyrone.—Principal markets were Dungannon, Strabane, Newtownstewart, Fintona, Ballygawley, Cookstown, and Stewartstown. Jobbers appear to have been regular attenders at these country markets, their operations being considered more or less injurious to the trade, although regular buyers found it a convenience at times to get cloth through those under agents, who

visited out of the way places where regular buyers seldom went. Many of these jobbers were honest and really respectable traders, but their peculiar calling had strong temptations to take advantage of sellers in small towns where they happened to be the only purchasers. They acted as middlemen, and those of them who were unscrupulous members of the brotherhood cheated the poor weaver of a fair price, and the buyer of his profit. Other irregularities are noted, such as entering into an agreement with the weaver before the market began as to the purchase of his webs, and thus depriving the regular buyers of the advantages of open market; but this was only practised by under agents, or commissioners, as they were called, and not by the bleachers or principal buyers. All these irregularities were found to exist more or less in Dungannon market. Brown seals also got at times into improper hands, and the impression was often so illegible on the webs as to make it difficult, if not impossible, to ascertain the name of the sealmaster, who, to conceal defects in the web, gave the seal a twist in making the impression so that his name could not be read.* This was an offence against 3 George III., cap. 34, which required sealmasters to affix a fair impression, &c. At this time it appeared that the County Tyrone spun but a small proportion of the great quantity of yarns which it manufactured, it being supplied principally from the Counties of Fermanagh, Leitrim, and Donegal.

Cookstown market was reported as well conducted and free of irregularities, but at Strabane and Newtownstewart some weavers used to plaster their webs with flour or potatoes, which, in the words of the report, gave the web "an artificial substance to the eye of the buyer." The magistrates found a difficulty at first in dealing with such cases, as they were doubtful if they came within the meaning of the Act which prohibited "the dyeing or staining of yarn or cloth, which made the yarn or cloth *difficult to bleach*," and this plastering, although the bleachers said that many of the webs had a black appearance when laid out, did not appear to be

*This was an old trick, for by a placard in our possession, dated 22nd October, 1804, sealmasters got the following caution :—

"A CAUTION TO IGNORANT AND FRAUDULENT SEALMASTERS.

"WHEREAS, it has been a practice for some time past in many of our markets to expose for sale brown linens upon which it is impossible to read either the name or place of abode of the sealmaster, which may happen sometimes through negligence, but from dear bought experience we generally find it to arise in the fraudulent intention of the sealmaster, who knowingly makes up linen with bad ends, concealed damages, and short measure; then wilfully blots the seal lest the buyer, when he discovers the fraud, should be able to ascertain and punish the offender, WE, the undersigned linen drapers, in order to put a stop to this improper practice, do pledge ourselves to each other that from henceforth we will not knowingly buy, or suffer to be bought for us, any brown linens except such as have the impression of the seal in legible characters on the outside, as directed by the Linen Board; and, also, that we will strictly examine every such piece to discover the frauds which this artifice is intended to conceal.

"Given under our hands this 22nd October, 1804."

reached by the Act. A case was, however, submitted for the opinion of the law officers of the Board, who stated that such practices did contravene the statute, and were punishable accordingly.

At Ballygawley market, plastered webs had been exposed, but owing to timely exertion, and giving premiums to weavers, the irregularities had been discontinued.

Co. Down.—The markets were Banbridge, Newry, Hillsborough, Rathfriland, Downpatrick, Kilkeel, Kirkcubbin, Ballynahinch, and Castletwellen. The report regarding the county is a short one, but of a favourable character. Respecting Banbridge market it states: "The gentlemen assembled at Banbridge instructed me to say that the condition and quality of the webs, brought to this market, might be improved by local grants of looms and wheels, given for the use of the market, and placed at the disposal of the trade."

Co. Antrim.—The chief markets were Belfast, Lisburn, Ballymena, Ballymoney, Portglenone, Randalstown, and Ahoghill.

Lisburn.—An extended report is given respecting Messrs. J. & W. Coulson's damask factory at Lisburn, by which it appeared that since 1759 the manufacturing of damask table linen had been carried on by members of the family.

In a memorial dated December 8, 1812, this firm applied to the Linen Board for grants to extend this important manufacture, which at great risk and expense they had brought to its then position entirely through their own efforts, and stated that they were "using every exertion in their power to excel and fully to supersede the demand for the long established manufacture of Germany; which, notwithstanding the many local advantages, the damask manufacturers of the continent possess . . . they were sanguine of being enabled to accomplish. They had recently, after trying various experiments in complicated and expensive machinery, produced such damasks as the specimens which they laid before the Board for their inspection." This memorial, as it well deserved, was most favourably received, and from the minutes we find this record, that "a drawing of the plan of the damask looms used by Messrs. Coulson was presented to the Board, with an estimate for erecting the same, in the most improved and perfect manner, and the Board having considered the foregoing memorial, plan and estimate annexed, and having viewed sundry specimens of damask, in preparation for the table of His Royal Highness the Prince Regent, submitted to them by the Messrs. Coulson—Resolved unanimously—That this Board highly approve of the plan of the damask loom this day submitted by Messrs. Coulson, of Lisburn, and that the specimens of damask this day exhibited by them afford the highest satisfaction to this Board, as being fully equal, in their opinion, to the finest foreign damasks that have been hitherto imported into these countries, and that their exertions, therefore, are deserving the aid and encouragement of the Board." And a grant was in accordance therewith made.*

*Mr. McCall, of Lisburn, (in some articles which appeared in the Linen Trade Circular in 1870) mentions that during Lord Hertford's vice royalty that nobleman brought under the notice of George the Third "the superiority of Coulson's table linen, and an order was sent to Lisburn for a large lot of goods, which were to be specially got up for the Royal household. The kingly patronage gave additional eclat to the damask factory, and when the cloths and napkins were delivered at St. James's they gave such satisfaction that a highly complimen-

Belfast.—This market was visited by the secretary of the Board on 25th October, 1816, and after the brown market, which was held in Donegall Street, was over, he attended a meeting of the principal merchants assembled at the White Linen Hall. At this meeting complaint was made that the linens, shipped on bounty from Belfast, were required to be examined at the Custom House, which was a place very inconvenient to shippers, and it was thought that the same indulgence which was given to the export merchants of Dublin might, with equal safety to the revenue, be granted to the trade of Belfast, and the secretary advised the Board that a communication should be made to the Commissioners of Customs requesting to know if they would have any objection to allow the White Linen Hall at Belfast to be in future the place for examination of cloth shipped on bounty. In a letter addressed by an extensive linen merchant in Belfast to the secretary of the Board, it appeared "that almost all the linens exported from Belfast at this time were upwards of 25 inches wide, and some were over 36 inches wide, such as sheetings and diapers.

Ballymena.—Complaints were made to the secretary that the robbery of bleach greens frequently occurred in this locality, and that the law, which, as it then stood, gave as a punishment for the offence, imprisonment for seven years up to transportation for life, was found not sufficiently deterrent, and the trade here wished to go back to the old law, which treated the offence as a felony, punishable by hanging, and without the benefit of clergy. The 51 Geo. III. c. 39, passed in 1811, repealed the Act of the Irish Parliament 3 Geo. III. c. 34. At the present day it causes a shudder to reflect upon the severity of the law as it stood at the close of the past century, when punishment by death was inflicted for thefts which in our day would be treated as comparatively small offences.*

Robbing bleach greens had a kind of attraction in former days, which the depraved and desperate looked upon as the very chivalry of crime. But early in the present century John

tary letter was sent to the manufacturer, stating how much Queen Charlotte was pleased with their design and workmanship.

The fame of Coulson's damask rapidly rose after the satisfactory accomplishment of the Royal order, and not only the leading peers of Great Britain, but several of the continental potentates, were found among his patrons. When any of these eminent personages visited the north of Ireland one of the special objects of their curiosity was the Lisburn damask works."

*At the March Assizes, held in Downpatrick in 1785, John Johnston and David Dogherly were found guilty of stealing in Rathfriland one piece of muslin and one piece of lawn from a pedlar named M'Mullen, and for that crime they were sentenced to death, and executed. Thomas Keough, for stealing two bullocks, value £5, was hanged on 7th May. William Curry for highway robbery was also executed. At the Kilmainham Assizes, in August, the same year, five men were sentenced to death for highway robbery. One of the culprits stated just before he was executed that he had himself robbed a man at Kilmacree, for which crime Timothy Murphy and two others had been hanged in the wrong.

Hancock, of Lisburn, a Quaker gentleman; John M'Cance, of Suffolk, near Belfast; John S. Ferguson, of Belfast; and other benevolent linen bleachers, set about the noble work of having the law relating to such robberies changed for a less sanguinary code, and ultimately succeeded in their praiseworthy efforts.

We need hardly add that the suggestion made by the Ballymena people was not acted upon, and that the machinery of the Board was not put in motion to reinstate the hangman in his office. As a natural reflex of the sanguinary spirit of the last century, we have at the present an increasing public opinion in favour of the total abolition of capital punishment. Previous to the alteration of the law relating to bleach green robbery, it was not unusual for two or three executions to follow each Assize on the north-east circuit; but under the more merciful code the plunder of bleach-fields is of rare occurrence, although the punishment seldom exceeds a few months in jail.

Complaints having been made at Ballymena that the sealmasters in that district frequently used a common stick as a yard measure, and which was not always the length of the statute yard, it was suggested that no yard-stick should be used save such as was branded by the inspector. In some cases it was proved that dishonest sealmasters hired their seals to equally disreputable drapers, and for a time bleachers who had purchased fraudulently made up webs suffered great losses in consequence of the linen having been returned on their hands. A county inspector (Mr. Fowler) caused one sealmaster to pay £30 as compensation for certain delinquencies of which he had been guilty.

The visit of the secretary to a couple or three factories which existed in Belfast is next given. In one of these we are told that 32,952 yards of sail cloth were made in one year, 11,572 yards of which were made from mill spun yarn, upon which bounty was paid to the extent of £96 8s 8d, another got £141 14s 2d.

Details of visit to Ballymoney are next given. At Balnamore mill 420 spindles had been set up, and 13 looms for making canvas bagging. At Knockboy 222 spindles were reported as having been set up in 1808; at Crumlin, 768 spindles in 1809; Cushendall, 512 in 1809, and 222 at Knockboy, near Ballymena.

Reports follow respecting the markets of Derry, Coleraine, Letterkenny, and Buncrana. At the latter, sail cloth and duck were made which was fully equal to Russian cloth. The details are pretty similar to those given in connection with other markets, of which we have furnished a sufficient number of examples to enable an estimate to be formed of the position of the trade at this period, so far as buying at open markets was concerned.

At *Cootehill*, where $5\frac{1}{4}$ and $6\frac{1}{4}$ sheetings were made, the

report states that they were brought to market in a very irregular condition, many of them had bad ends; of unequal fineness throughout, and all of them varied in length and breadth. A London factor, who happened to be in the district at the time, stated to the secretary that the Cootehill sheetings were likely to become less favourites than heretofore in the English markets from these circumstances, if not remedied in time, and that the sheetings of Yorkshire and Lancashire had already begun to interfere with them.

At *Ballibay* irregularities of jobbers and sealmasters were complained of, and that the flax was brought to market in an unclean and unmerchantable state, which depreciated its value very much, so that demand for the English market was falling off. Monaghan market exhibited irregularities regarding flax similar to Ballibay, and at Enniskillen a good deal of jobbing was complained of.

From general observations, which form the third part of the secretary's report, we add some extracts :

Rough Flax.—Export of flax to Great Britain rough from the scutch had within these 9 or 10 years back become a great branch of trade in this country. Great Britain not only offered a market for all we could send there, but she imported largely from foreign countries. In 1814 Ireland sent to England and Scotland 22,426 cwt., and in 1815, 29,291 cwt., exclusive of exports to other countries. The market price of flax in Ireland during this period might be averaged at £3 10s. per cwt. It has fallen in price since then; but taken at the price of the day, the sales of rough flax to Great Britain amounted in these two years to upwards of £181,000.

Then follow suggestions with regard to the extension of flax culture in the south of Ireland to supply the home demand, and exclude the foreigner. Respecting the quality of the Irish flax at this period the report says :—

The quality of our Irish flax is admitted to be greatly superior to that of the foreign. The flax of the County Armagh is the favourite in the Dublin market, particularly that from Tandragee, which some of the buyers do not hesitate to call the best flax in the world, possessing more staple than any foreign flax whatever. The manner, however, in which the foreign flax comes to the market compels the English buyer to give it a reluctant preference. It comes in a form and condition that renders it a more disposable article of commerce. Complaints were made to me in every market which I visited of the irregular manner in which it is brought for sale. The rough flax, they say, comes in so unclean and so unmerchantable a state that nothing but the superior quality of the article preserves a demand for it in the English market. The demand, they fear, will decline unless the markets are placed under legislative regulation in favour of the better *mannered*, but inferior, flax of the continent. Some of it comes in bundles, the bundles varying in size and weight; some in sacks, the flax loosely thrown into them; some in apronsfull, and some in handfuls. All being sold by weight, various expedients are used to increase it, and every expedient is injurious, particularly the damping of it, a very common practice

which makes the flax afterwards heat. The inside of every bundle is often full of the shoves, pebbles, and dirt of various kinds.

Very great improvements have taken place since this period in the handling of flax, and the manner in which it is brought to market, but frequently we hear of complaints at the present day of badly cleaned fibre; and that owing to carelessness in the handling of it in some of the stages the value is often very much depreciated, and though the farmer is disappointed at the result the fault in most instances lies at his own door, and is capable of removal by proper care.

Scutch mills are next treated of in this report, and then a section is devoted to hand spun yarn, which at this period was a branch of trade extensively carried on in several parts of Ireland, for until 1828 all the mill spun yarn was of coarse quality, and spun dry. Complaints were frequently made respecting the hand spinning branch, and it is to be regretted that owing to these irregularities the trade in yarns, both on home and export account, was much injured.

From memorials appended to the report we learn— That a great portion of the coarse linens of Ireland were manufactured from yarn spun in Connaught, and that almost the whole of the yarn of that province was made up contrary to the law, and that yarn called “spangle yarn” was fraudulently made up, so that English and Scotch manufacturers were to a great extent obliged to give up buying it, and to import yarn from the Continent, even though at a dearer rate and of an inferior quality. But on account of its being always regularly reeled and brought to market in a saleable state they bought it, though they would willingly pay 10 per cent. more for the Irish yarn if properly reeled than for any foreign yarn.

The want of employment and depressed state of trade in Connaught at this time was alleged to be owing to the dishonest way in which these yarns were made up, and the remarks conclude with the words—“ If the Irish yarn was all made of one length in the *slip*, and fairly and strongly divided in the *cut*, it would keep the foreign yarn away altogether.”

The trade in hand-spun yarn in Connaught as well as in Ulster is now a thing of the past. The mill-spun yarn speedily drove it out of existence, and although it is greatly to be regretted that the trade suffered so much injury, owing to the fraudulent practices and irregularities complained of, the extinction of the industry was rapidly approaching, and no efforts, however directed, could have saved it from annihilation. If, however, at this period, our continental competitors were beating us in the hand-spun branch of trade, we took a good start of them at mill-spinning, and fortunate

it is that this was done, as it quickly turned the scale in our favour, so that Irish linens speedily took the lead of foreign goods in the markets of the world, and retain to this day their name for superior bleach and finish.

Brown Linen Markets.—Under this head the secretary gives detailed reports regarding the class of linen goods made in the various districts he visited, and the estimated quantities sold at each of the markets in the year 1816. As the figures possess much interest we insert the Return in full.

**Value of Linens sold at each Linen Market in the Province of Ulster,
in 1816.**

County.	Market.	Value of Sales at each Market.	Value of Annual Sales.
Armagh.	Armagh	£3,800 0 0	£197,600 0 0
	Lurgan	1,850 0 0	96,200 0 0
	Tandragee	1,000 0 0	52,000 0 0
	Portadown	150 0 0	7,800 0 0
			<hr/> £353,600 0 0
Tyrone.	Dungannon	4,000 0 0	208,000 0 0
	Strabane	2,380 0 0	123,760 0 0
	Cookstown	1,300 0 0	67,600 0 0
	Stewartstown	630 0 0	32,760 0 0
	Newtownstewart	400 0 0	20,800 0 0
	Fintona	1,600 0 0	41,600 0 0
	Omagh	920 0 0	47,840 0 0
	Ballygawley	650 0 0	16,900 0 0
			<hr/> £559,260 0 0
Down.	Banbridge	1,038 0 0	53,976 0 0
	Newry	922 0 0	47,944 0 0
	Downpatrick	750 0 0	39,000 0 0
	Kilkeel	400 0 0	20,800 0 0
	Rathfriland	66 0 0	3,432 0 0
	Ballynahinch	17 0 0	884 0 0
	Hillsborough	8 0 0	416 0 0
	Kirkcubbin	300 0 0	7,800 0 0
			<hr/> £174,252 0 0
Antrim.	Belfast	4,000 0 0	208,000 0 0
	Lisburn	5,000 0 0	260,000 0 0
	Ballymena	2,500 0 0	130,000 0 0
	Ballymoney	2,200 0 0	52,800 0 0
	Portglenone	1,200 0 0	28,800 0 0
	Ahoghill	1,500 0 0	18,000 0 0
			<hr/> £697,600 0 0

County.	Market.	Value of Sales at each Market.	Value of Annual Sales.
Derry.	Derry	1,130 0 0	58,760 0 0
	Coleraine	850 0 0	44,200 0 0
	Money more	2,500 0 0	30,000 0 0
	Maghera	1,000 0 0	12,000 0 0
	Magherafelt	1,600 0 0	19,200 0 0
	Kilreagh	1,000 0 0	12,000 0 0
			<hr/> £176,160 0 0
Donegal.	Rathmelton	227 10 0	11,830 0 0
	Letterkenny	160 0 0	8,320 0 0
	Stranorlar	130 0 0	6,760 0 0
			<hr/> £26,910 0 0
Cavan.	Cootehill	1,000 0 0	52,000 0 0
	Ballynagh	500 0 0	26,000 0 0
	Killeshandra	400 0 0	20,800 0 0
	Arvagh	400 0 0	20,800 0 0
			<hr/> £119,600 0 0
Monaghan.	Monaghan	1,000 0 0	52,000 0 0
	Ballybay	1,200 0 0	62,400 0 0
	Castleblayney,	850 0 0	44,200 0 0
	Clones	650 0 0	33,800 0 0
	Glasslough	240 0 0	12,480 0 0
			<hr/> £204,880 0 0
Fermanagh.	Enniskillen	450 0 0	11,700 0 0
			<hr/> £11,700 0 0
Total,			<hr/> £2,323,962 0 0

The Secretary adds—

“The foregoing account of the sales of the Province is subject to this observation, namely, that linen bought by the jobbers in one market, and sold by them in another, may be said to be twice entered. I do admit it, but still I think the sum here stated is rather *within* than *without* the truth, because the sales of linen at all the great fairs of the Province, which are not included here, are so considerable, and so much more than countervail any reduction to be made on the other hand, that instead of deducting from the general amount I should rather be disposed to add to it, and say that the total value of the home sales of Brown linen in the Province of Ulster amounted annually to about two millions and a-half sterling.”

The number of white seals, issued from 1782 to this time, were 1,596, and brown seals sent into Ulster to this date, since 1802, were 1,616.

From the appendix to the report we tabulate some particulars respecting the class of linen goods made at this period in a few of the districts of Ulster, which will close our sketch of the trade as it stood in 1816.

BROWN CLOTH MANUFACTURED IN SOME OF THE PRINCIPAL DISTRICTS OF
ULSTER IN 1816, AND SOLD AT THE UNDERNOTED MARKETS.

Towns.	Description of cloth.	Quality.	Brown Width Inches.	Length Yards.	Average Price.	OBSERVATIONS.
Armagh	Linen Do. Lawns	5 ⁰⁰ to 6 ⁰⁰ 7 ⁰⁰ to 12 ⁰⁰ 7 ⁰⁰ to 10 ⁰⁰	34/35 35/38 34/36	51/54 24/27 25/27	<i>Per yard</i> 6½d to 8d 9d to 1s 4d ..	5s to 8s principally for half bleaching for home trade; 9s to 12s for full blg. Sold by factors in Dublin, London, & Glasgow, and for export to America. Lawns washed and beetled.
Lurgan	Linen Lawns Diapers	14 ⁰⁰ to 16 ⁰⁰	37½/38 26/30 21/26	24/25 25/27 50/59	2s od 1s 11d 1s 11d	Lawns when bld. sold in United Kingdom; used for printed hkfs. and children's use, &c. Diapers when bld. used as table cloths, towel-ling, &c.
Tandragee	Linen Do.	8 ⁰⁰ 11 ⁰⁰ to 14 ⁰⁰	35/36 37/38	25/27 24/25	9½d to 1s 6d	8s sent to England and West Indies. Some half bld.; 11s to 14s bld. for home and export trade.
Portadown	Do.	5 ⁰⁰ to 6 ⁰⁰	34/35	50/54	7d	For half blg. for home trade.
Dungannon	Do.	6 ⁰⁰ to 11 ⁰⁰	¾	48/52	Tow yarn cloth about 5½d; flax 9d to 13½d	Yarn changed. Some of the linen half bld.
Strabane	Tow yarn	Middling	28	52/100	6d to 8d	Yarn tolerably well bld. for English mkt.
Cookstown	Linen Do. Do.	Pretty good 6 ⁰⁰ to 11 ⁰⁰ 8 ⁰⁰ to 12 ⁰⁰	32 ¾ ¾	52 52 52	14d to 20d 8½d 14½d	Chiefly for full blg. Yarn partly bld. For home use, for army shirting and American and West Indian mkts. when bld.
Banbridge	Do. Do. Lawns Do.	7 ⁰⁰ to 8 ⁰⁰ 13 ⁰⁰ to 17 ⁰⁰ 8 ⁰⁰ to 16 ⁰⁰ ...	35/36 37½/38 30 26	25 25 26 26	<i>Per web</i> £1 0 0 £2 1 0 £1 13 4	Made of yarn boiled in potash, and spread on grass for a few days. Lawns for export.

BROWN CLOTH MANUFACTURED IN SOME OF THE PRINCIPAL DISTRICTS OF
ULSTER IN 1816, AND SOLD AT THE UNDERNOTED MARKETS.—
(Continued.)

Towns.	Description of cloth.	Quality.	Brown Width Inches.	Length Yards.	Average Price.	OBSERVATIONS.
Newry	Linen	6 ⁰⁰ to 8 ⁰⁰	36/38	25	<i>Per web</i> £1 0 0	Coarse goods half bld. for English mkt. Fine goods full bld. for home and export.
	Do.	10 ⁰⁰ to 14 ⁰⁰	36/38	25	£1 17 6	
	Do.	Coarse	28½/30	40/80	£2 0 0	
D. patrick	Do.	6 ⁰⁰ to 17 ⁰⁰	35/38	25	<i>Per yard</i> 7d to 2s 10d	For half and full bld. for home trade shirting linen.
Belfast	*Stout linen chiefly.	16 ⁰⁰ to 22 ⁰⁰	38	25	3s 4d	Some sold brown and some half white, small portion of brown sent to Scot- land; prime stout fabrics for London and south of Eng- land; slight texture for America and West Indies.
Lisburn	Fine linen	Sets not gvn	38	25	3s 3½d	For home and ex- port trade.
	Lawns	Do.	30	26	2s 4d	
	Dowlas	Do.	35	27	1s 1d	Consumed at home or exported in mkt. state. Some dyed and sent to West Indies.
	Do.	Do.	35	62/78	11d	
B. mena	Linen	Do.	28	50/52	<i>Per web</i> £2 0 0	When bld. sold at home, and exported to American mkt.
	Do.	Do.	38	25	£2 10 0	
B. money	Do.	Do.	28	50/52	£1 6 0	¾ finished brown for Dublin, England, and America. 7/8 bld. for home and export.
	Do.	Do.	32	52	£7 0 0	

* Report states—The market is held in a commodious hall, off Donegall Street, enclosed with high walls and arched shades for the accommodation of buyers in bad weather. It was first built by the late Marquis of Donegall, and since rebuilt by the linen-draper of Belfast. . . . Most linens come in brown state, but others grey or half white, for use of the common people, who loudly complain of the rotten state of the linens retailed in a grey state in the streets, alleging that they give no wear from being bleached with lime.

1821. The secretary made another tour of inspection through Ulster, commencing the 9th May and ending the 6th August this year, and presented to the Board in March, 1822, a voluminous report (extending over 330 pages of printed folio), and from which we make some extracts.

Much of the report is taken up with detailed accounts of the various seals issued by the Board at different periods, and the difficulties experienced in carrying out the rules respecting the stamping of goods. The first seal granted to a *Brown lapper* was issued on the 11th May, 1762. This seal was subsequently recalled, and after the Act 21 & 22 Geo. III., cap 35, came into force, a seal of a different form was issued on 22nd July, 1782. The measuring and stamping of brown linen in the province of Ulster continued, for fifteen years, to be carried out after the passing of this Act, by a number of sealmasters in each of the market towns, but in the other provinces *sole* sealmasters (that is only one for each district) were appointed, with a number of assistants.

These seals were square, two-and-a-half by two inches, had the name and address of the sealmaster surrounding a device of a spinning wheel, and spaces for entering the length and breadth of the web, which was done either by type or ink. This last-named seal was recalled, and a new one issued in 1798. The recalling of the seals was the plan adopted for checking abuses which would from time to time grow up. When once a seal was recalled it was a punishable offence to use it, and in that way sealmasters who had been guilty of irregularities found themselves deprived of office. The seal of 1798 was oval shaped, with the words, "Trustees linen manufacture," surrounding the device of an Irish harp with the crown, and instead of the name of the sealmaster being given a number was adopted, and the seals were duplicated for the use of the sealmasters' assistants. A new form of bond was required to be entered into by the sealmaster and his deputies at this period.

The regulations in respect to this seal having been evaded, and the change by which a principal sealmaster, with a number of assistants under him, appointed to each district not having given satisfaction to the trade, and that by reason of the reduction in the number of seals, a good deal of cloth was sold under the old seals, or without any seals at all, it was found necessary to cancel the whole of the arrangements of 1798, and to go back to the previous system of appointing a number of independent brown cloth sealmasters. Accordingly a circular seal was adopted which had the name of the sealmaster on it, with the words "seal of 1799" in the centre. This was the year in which the change was made, although the seal was not issued till 21st February, 1800. This seal continued in force for two years, when its form was

altered, and a square one was adopted, with the words in the centre, "Seal of 1802." The minutes of the Board narrate numerous instances of the steps taken to enforce this law. Many were the appointments made, and many cases are recorded of punishments and dismissals of persons entrusted with these brown seals. Mr. Greer, the Inspector-General, mentioned in a report that "many abuses prevailed respecting the brown seals, such as lending them out, stamping without measuring, and overlooking defects by not taking sufficient time to examine the linens brought to be sealed."

Independent of those who held the office of public sealmasters, the Board issued seals to manufacturers of standing, and in whom they reposed confidence, and these were permitted to seal their own cloth.

Extended reports are given of meetings held at the various towns through which the secretary passed, and so far as we can judge no trouble was spared to collect as much information as possible, and from all persons connected with the trade, with a view to improve matters; and there can be no doubt that had a number of practical men, well acquainted with the technicalities of the trade, been at the head of affairs in Dublin the staple industry would have been much more efficiently looked after. But the cumbrous machinery, originally devised with the best intentions, was practically inefficient, so that laxity permeated every department, and this tone reached down to the lowest official connected with the Board.

Space will not permit of more than a few extracts being made regarding the manner in which business was carried on at some of these country markets. We select *Ballymena* market, as it still survives, whilst all others have passed out of existence, by changes which sprung up in later times respecting the mode of carrying on the trade:—

Minutes of public meeting at Ballymena, July 7, 1821.—A large number of manufacturers and weavers attended. A paper was read representing the views of a section of the manufacturers, who complained that the appointment of a *sole sealmaster* who acted in this district did not give satisfaction. "Before this regulation took place we measured, and sealed our cloth the evening before the market at our own homes, and on coming here had full liberty to attend to the purchasing of yarn until the commencement of the cloth market, but now when our cloth comes to town we are obliged, often to our loss, to attend no longer to the yarn market, but instantly to mind the getting of our cloth prepared for the market, . . . which often requires some time, the press and confusion being very great; we have also to pay for the service done by the sole sealmaster, and however trifling the sum may be we think that in the present depressed state of trade every fair means should be resorted to were it only to save one penny. We also think that by putting us again into a capacity of sealing our own cloth no injury to the purchaser of the linen could possibly arise, as we humbly conceive any of us are fully equal to answer any mistake that might happen, and on the shortest notice."

Another body of manufacturers and weavers, who differed in some respects from these views, made a separate statement. In it they mention that "the average length of the coarse yard wides and of the three-quarter yard wides may be said to be 52 yards, for breadthing, measuring, and stamping of which we are charged 2d and no more. The average length of the fine yard wides is 25 yards, and for every web of this description we have been also charged the same price until this day, when the charge fell to 1d. An effort was made many years ago to raise the charge upon the double webs to 3d, but it did not succeed; and we have been told that in former times it was not more than what the single webs now pay. The usual demand on us for the House, which is at the rate of 2d for every double and 1d for every single web, is the only other charge to which our webs are subject.

"With respect to the accommodation afforded to the weavers of the town, for the measuring and lapping of their webs, we cannot all speak alike, because some of us are allowed by Mr. Hogg (the sealmaster) to measure our own webs at home, and type the lengths upon them, to which he afterwards affixes his crown stamp, on our coming into town, on the faith of our accuracy, we paying him 1d for the same; but such of the present committee as have not this accommodation from him must say that the inconveniences felt on a market morning are very severe. The different deputies who are employed by Mr. Hogg as his measurers do their business in different parts of the town; most of those houses are roomy enough, but the distance of many of them from Mr. Hogg and his assistants to get his stamp put on is productive of great delay. . . . As soon as our webs are sold we hurry to the measurer, and when we are done with him, we run back to Mr. Hogg's place for his stamp, and then to the merchant to be paid. . . . To avoid this confusion many of the manufacturers and weavers travel between twenty and thirty miles to Belfast."

Other papers were handed in from the buyers and bleachers of the district, and also one from Mr. Hogg, jun., the sole sealmaster, but enough has been extracted from the report to enable our readers to obtain an insight into the position of the market at this period.

Appended to the report of the secretary is a general return of sales in the several linen markets of Ireland for the year ended 5th January, 1822.

The following is a general abstract under the respective counties:—

Cavan	£116,626	5	5	East Meath	£900	0	0
Monaghan	142,952	12	1	Louth	212,062	0	7
Fermanagh	23,386	10	0	King's County	22,161	1	4
Tyrone	395,809	6	11	Longford	43,269	18	4
Donegal	33,076	6	11	Kildare	1,125	0	0
Londonderry	231,219	12	4	Kilkenny	1,345	15	0
Antrim	345,504	16	10	Westmeath	3,683	9	6
Down	214,199	3	0	Wexford	807	10	0
Armagh	570,348	2	10				
Total for Ulster	£2,073,122	16	4	Total for Leinster	£285,354	14	9

Cork	£49,183	3	7	Sligo	£26,785	9	11
Clare	18	19	6	Mayo	71,526	13	1
Limerick	5,627	1	8	Galway	8,421	16	8
Kerry	13,019	11	6	Leitrim	723	13	4
Tipperary	994	15	10	Roscommon	10,207	1	0
Waterford	27	1	8				

Total for Munster £68,870 13 9 Total for Connaught £117,664 14 0

Total sales of brown linen cloth in Ireland for the year
ended 5th January, 1822 £2,545,012 18 10

1825.—Up to this period all the mill-spun yarn produced was on the dry system, and unless an improvement had been effected by which the flax could be drawn out into finer threads than it had to this been possible to do, hand-spinning would, for the finer classes of linen goods, have lasted much longer as a handicraft, or we should have had to continue to import fine numbers from the Continent for linens and cambrics. But now English and Scotch spinners had adopted the wet system, and were beginning to send over their yarns to Ireland, and it did not take long to prove that our hand-spun yarns could not compete with this great improvement.

1826.—The time was now approaching when it was felt that a continuance of State aid, on behalf of an industry which had attained such proportions as this, could no longer be defended, either on the grounds of public policy or commercial principles, and this view was shared to a large extent by the trade. The administrative department at headquarters had been, for years previously, falling into decay; and frequently, when meetings were summoned for the despatch of most important business, out of seventy-two members, it was found impossible to collect more than three or four, sometimes only two attended. It is most surprising that the original machinery was preserved intact until the day it was broken up, and that no attempt was made to reduce the directorate to a sound and practically efficient basis; but possibly the growing dislike against such a control prevented any steps being taken in later times to improve, and therefore prolong its existence. Accordingly, we find that Government took the initiative step, and on the 23rd of August this year the Chief Secretary to the Lord Lieutenant addressed a communication to the Trustees, intimating that the Lords Commissioners of his Majesty's Treasury having considered that the grant heretofore made to the Linen Board, for the support of that branch of industry, could not be continued any longer; and, as his Excellency concurred in the opinion that there were many objections to the continuance of the grant, but, at the same time, not to suddenly stop it, he informed the Trustees that the amount would be

limited to £10,000 for 1827. Nothing appears to have been done in reference to this letter until the following year.

1827.—At a meeting of the Linen Board on 6th February the communication from the Chief Secretary to the Lord Lieutenant, of 23rd August, 1826, was taken into consideration.

A letter from Mr. Corry, the secretary, was also read, and in this he reviewed the position of the Board, in reference to its surveillance of the trade; and—although he had been in their service for nearly thirty-two years, and had the best opportunities of judging of the working of the establishment, “which for more than one hundred years had been entrusted with the protection and management of the linen manufacture of Ireland”—he admitted there was a popular opinion abroad unfavourable to the continuance of the Board, and he agreed in the view that after a certain point of prosperity has been attained the less any manufacture was encumbered with legislative regulation the better.

A special meeting of the Trustees was convened for the 10th February, “to consider whether it would not be expedient to propose to the Government of Ireland the dissolution of this Board.” However, on this occasion it was resolved—“That it is *not* expedient to make such a proposition to Government.”

Nothing further was done until the 7th August, when a letter from Dublin Castle was laid before the Board. In this the Lord Lieutenant intimated that it was not the intention of his Majesty’s Government to recommend that any grant should be proposed to Parliament for the encouragement of the linen manufacture for the year 1828.

A copy of this letter was sent to all the members of the Board, requesting each to give his opinion thereon in the fullest manner, and in an appendix to the transactions of the Trustees for 1827 a large number of replies were published, not only from individual members of the Board, but also from linen merchants and manufacturers, whose opinions, regarding the control of the trade in future, were also elicited. The substance of these replies shows an unmistakably adverse feeling regarding the central control, but, at the same time, it was generally admitted that a local control, to some extent, was still absolutely necessary.

The opinion of the trade was also collected by the Board, as to the wisdom of retaining certain portions of the Act, and a system of county inspection was suggested, which met with general approbation.

After taking these replies into consideration, at a meeting held on the 14th September, it was “Resolved unanimously:—That legislative provisions continue to be essentially required for the protection and regulation of some branches of the linen trade

of Ireland, particularly with reference to the sealing and measuring of linen cloth brought to market, and for detecting and punishing frauds in the manufacture and making up linen cloth and yarn, and in the preparation and manner of exposing flax for sale. And resolved—that such parts of the Act of 6 Geo. IV. cap. 122, as relate to the foregoing resolution, ought to be retained or re-enacted as law, together with such additions as may be deemed advisable for the protection of the trade.”

A Bill was accordingly drafted and submitted to Parliament the following year.

1828.—On 15th July, the Act 9 Geo. IV. cap. 62, was passed. Sec. 2.—Dissolved the Board,* and all their property reverted to the Crown. But a very comprehensive legislative control was still kept up, as by sec. 3.—All flax sold in fairs or markets was to be of equal cleanness and quality throughout, under penalty not exceeding one shilling per stone. Sec. 4.—Magistrates might cause flax to be examined. Sec. 9.—Weavers to put their names on each web they wove, also to mark length and breadth; penalty for neglect not exceeding £1. Sec. 10.—Regulated the breadth of goods known as yard wides, 7/8, 3/4, 9/8, 6/4, &c. Sec. 12.—Linen to be of equal fineness throughout, and not to be pasted, dyed, or stained. Sec. 14.—On complaints being made to magistrates they had power to refer disputes to arbitration of three persons skilled in weaving, their opinion being final. Sec. 19.—Lord Lieutenant had power to appoint twelve persons in each county to be a committee for controlling brown linen sealmasters, who were continued in office. Sec. 26.—No person to sell or buy any unbleached linen not sealed. Sec. 27.—Nothing beyond breadth of the thumb to be allowed with the statute yard.

These provisions for regulating the trade were to be in force for three years. The Act was renewed on three occasions, viz., 2 and 3 Wm. IV. cap. 77, 5 and 6 Wm. IV. cap. 27, and 1 and 2 Vict. cap. 52, the latter continuing for five years, when it was allowed to lapse.

The improvements effected in mill-spinning were this

* As it may be interesting, we note the names of the Trustees at the period when the Board was dissolved, and which were as follows: *Marquises*—Downshire, Donegal, Thomond, Sligo, Conyngham, Ormonde. *Earls*—Granard, Carrick, Shannon, Courtown, Charlemont, Kingston, Roden, Longford, Enniskillen, Erne, Clare, Leitrim, Belmore, O'Neill, Caledon, Gosford, Charleville, Glengall, Kilmorey, Norbury. *Viscounts*—Forbes, Clermont, Northland, Howarden, Ferrard, Lorton, Ennismore. *Bishops*—The Primate, Meath, Derry, Kilmore. *Barons*—Blayney, Carbery, Farnham, Dufferin, Dunally, Oriel. *Commoners*—Sir N. O. Colthurst, Bart., M.P.; Right Hon. Sir George F. Hill, Bart., M.P.; Right Hon. The Knight of Kerry, M.P.; Right Hon. J. O. Vandeleur; Right Hon. James Fitzgerald; Hon. R. Ward; Hon. H. R. Pakenham; George R. Dawson, M.P.; James Browne, M.P.; James Daly, M.P.; Arthur French, M.P.; Owen Wynne, M.P.; James Cuff, M.P.; Charles Brownlow, M.P.; General Archdall, M.P.; E. A. McNaghten, M.P.; P. La Touche, jun.; C. P. Leslie, Matthew Forde, Nathaniel Sneyd, J. C. Beresford, H. J. Clements, Thomas, Verner William O. Gore; David Kerr; E. McDonnell; R. S. Tighe; Cornelius Bolton.

year turned to practical account in this country, through the enterprise of Mr. James Murland, of Castlewella, who in the most spirited manner, erected, at his own cost, and without any subsidy from the Board, a wet-spinning mill, driven by steam power. The time when the mill was started appeared a most favourable one, as demand for suitable warp yarns was active, and the raw material was cheap, so that the enterprise was rewarded by handsome profits on the undertaking.

1830.—The example set by Mr. Murland was quickly followed by another leading firm, then engaged in the cotton trade—the Messrs. Mulholland—who first set up about 1,000 spindles in a small mill situate in Frances Street, Belfast, and subsequently erected 8,000 spindles in York Street Mill.

At this interesting period in the history of the flax-spinning trade we cannot do better than refer to “Ireland and her Staple Manufactures,” for a description of the Messrs. Mulholland’s mercantile spirit, and the concern over which they presided.

“Having tested the principle and found it likely to succeed, the firm of Mulholland had the new establishment (their old mill, a cotton one, had been burned down on the 10th June, 1828), fitted up with superior machinery for flax-spinning, and in the spring of 1830, the first bundle of yarn was made up from the steam driven spindles of York Street Mill. . . . Many cautious men of that day considered the flaxen yarn project as a very hazardous undertaking, but the sturdy perseverance and mercantile energy which distinguished the house of Mulholland, while they were engaged in the cotton trade, did not wane when they set to work in the other line, and not only did flax-spinning by mechanical power succeed beyond the most sanguine expectations of the firm, but the yarn produced was so much cheaper, and so superior to the finger-spun article, that it gave quite a new impulse to the manufacture of linen. Demand increased enormously, and although the prosperity of the York Street Mill caused many other men of enterprise to follow in the same course, it was difficult to keep pace with the wants of manufacturers. Belfast spun yarns were much sought after, as well by local makers of linen as by the trade at a distance; orders poured in from the Scotch houses, and large quantities were sent to English firms. When the York Street Mill commenced flax-spinning the total exports of Yarn from Ulster did not exceed one million pounds. In 1865 nearly twenty-eight millions of pounds were exported from Belfast alone. . . .

The success of the Messrs. Mulholland as the introducers of the new mode of flax-spinning into Belfast was quite equal to their enterprise. . . . and the profits of the concern exceeded the dreamiest imaginings of the proprietors. . . . The York Street Mill commenced with about 8,000 spindles, these were time after time added to. . . . (Later on we shall note the progress of this concern.) . . . Belfast can never forget how much she owes to the house of Mulholland. What the firm of Marshall did for Leeds, and that of Baxter for Dundee, the brothers Mulholland accomplished for Belfast, in leading the way in flax spinning. When their new concern commenced work in 1830 the population of the borough was under 50,000, and the exports annually sent away barely amounted to four millions sterling. . . . Mr. Andrew Mulholland lived to see Belfast become the great centre of Ireland’s linen trade and the chief seat of flax spinning.”

1835.—The rapid improvement in linen manufacturing which

followed the introduction of the wet-spinning system, and the cheapness with which yarns were produced, and the great regularity in regard to weights, counts, &c., as compared with the hand-spun material, enabled manufacturers to considerably reduce the price of cloth. Irish cloth was now rapidly cutting out German cloth abroad, and some of the South American markets, which formerly took the manufactures of Silesia, Brabant, &c., were now supplied with *Irish* Silesians, Brabantes, &c.

The relative prices, at different periods, of some of the leading sets of linen are given in the following table :—

YARD WIDE FAMILY LINEN PER YARD.

	14 ⁰⁰	18 ⁰⁰	20 ⁰⁰	22 ⁰⁰	24 ⁰⁰
1805,	2/-	3/4	4/4	5/11	10/6
1815,	2/-	3/1	3/9	5/3	9/6
1820,	1/6	2/10	3/6	5/-	9/6
1830,	1/5½	2/6	3/2	4/6	8/6
1835,	1/4½	2/1	2/10	4/2	6/-

1836—1840.—Trade in 1836 showed satisfactory progress, the exports of both cloth and yarn being considerably in excess of the previous year; however, 1837 turned out unfavourable, as the terrible calamity which came over financial affairs in America told so severely on the Irish linen trade, that exports of cloth fell off enormously, and home demand for yarns being much reduced, nearly double the quantity, compared with previous year, was exported. A recovery took place in 1838, and trade gradually improved down to close of 1840, a steady tone being maintained in all departments.

On 15th October, 1835, a great fire broke out in New York, which destroyed 674 buildings. . . . About 1,000 mercantile firms were dislodged. . . . The fire burned over an area of 52 acres, comprising a densely-built and exclusively mercantile portion of the city. . . . The property destroyed was valued at 20,000,000 dollars. 1836.—Active measures having been taken to rebuild the burned portion of the city, the ground was this year nearly covered by new and handsome erections. 1837.—During this year a financial crisis occurred in America. . . . All the banks suspended specie payments, and very extensive failures took place, the effects being very severely felt in Great Britain. At Manchester, 50,000 hands were thrown out of employment, and most of the large establishments were working only half time. (Extracts from "Annual Register" and "Brit. Almanac and Companion" at this period.)

CHAPTER VI.

From the formation of the Flax Improvement Society until
its dissolution.

FROM the dissolution of the Linen Trade Board in 1828 there appears to have been no public body specially identified with our staple industry, and save the Royal Dublin Society, which offered prizes at their exhibitions for flax products, the trade seems to have been left entirely to itself. Possibly the feeling of dissatisfaction which had been gaining strength for years previous to the extinction of the Board, and the opposition to the continuance of extraneous aid and control, which was then no longer needed, may have been unfavourable, for a long time after, to the establishment of any new organisation to watch over the interests of the trade. Be that as it may, we find that after it had been freed from all restriction, and released from the nursing which, for 117 years, had been carried on, commercial men set to work, and with their own resources, skill, and enterprise, in a very short space of time quite revolutionised the spinning branch, and gave an immense impetus to the weaving. The factory was now taking the place of the old hand labour system which had been spread over the country, and every year witnessed an immense increase to the population of Belfast, where labour was attracted through the rapid extension of the spinning mills.

1841.—The opening of this year witnessed an effort to organise a Society to take charge of an important branch of the trade, and to draw greater attention to what was admitted to be of vast consequence to the future progress of our industry, namely, the promotion and improvement of the growth of flax in Ireland.

A Society was accordingly formed for this purpose, and from the preliminary prospectus we make the following extract, which sets forth the objects and plans proposed :—

“The linen trade is admitted by all to have been the greatest benefit to Ireland, particularly to Ulster; it is, therefore, a strange fact that little attention has been paid to the improved cultivation of flax, and its culture is totally neglected in the most fertile part of the country. Were the sale of the article limited, or the grower not fairly remunerated, this state of things could be easily accounted for; but the contrary being the case, it is a matter of astonishment to all strangers, and is not to be explained either easily or satisfactorily. Partial failures have occasionally occurred from very dry weather in seed time and early spring, or from the use of bad seed; but the chief sources of failure are attributable to carelessness and mismanagement in preparing the ground, weeding, steeping, grassing, and swingling the flax. These being all faults, referable to the farmer himself, he willingly excuses by blaming the soil, the season, the water, or anything but his own ignorance or indolence, and is perfectly satisfied that a crop of flax cannot be rendered as profitable here as it is on the Continent, where attention worthy the importance of the subject is paid.

For the purpose of correcting such erroneous views, and, if possible, of forcing conviction on the most prejudiced, a society is in process of formation whose objects will be to show what actually can be done by establishing model farms in different districts by sending intelligent persons to witness the management of the flax crop as practised in Holland, Belgium, and France; for the purpose of instructing the farmers of our own country hereby to produce flax equal to the finer sorts of the Continent, keeping the money at home, which is now sent to those places; and little doubt can be reasonably entertained that we should shortly supply our English and Scotch neighbours, and thus add an increased wealth to our farmers, and of employment to our labouring population.”

The Society was launched under most favourable auspices, and proved a very great success. The donations and subscriptions amounted during the first year to £1,161 6s 11d. Public meetings were held in various places, with a view to disseminate as much information as possible, and the society worked most energetically for many years.

1843.—Through the exertions of the Society, the increase in the growth of flax in Ireland this year was estimated at 14,270 tons, but complaint was made that the public did not support the Society to the extent it deserved.

1845.—It may be interesting, in connection with the movement which resulted in the repeal of the Corn Laws, and the adoption of the policy of free trade, to here refer to the fearless position taken up by those interested in the linen manufacture, as showing what little grounds of apprehension were entertained respecting foreign competition. In a petition, presented to Parliament, and numerous signed by spinners and manufacturers, it was stated “That the growers of flax do not enjoy any protection against foreign competition (a duty of £10 a ton, which was

formerly levied on foreign flax, had been abolished), and that the crop is extensively cultivated, and has proved in general more remunerative to the farmer than those crops which have hitherto been largely protected. That experience having clearly proved to petitioners that the linens of Ireland can successfully compete with those of any other country, petitioners are prepared to relinquish all protection as applied to them; and they therefore pray that in the adoption of any measures regulating the commercial policy of Great Britain, the free system under which the growth of flax has flourished may be applied to the linen manufactures of Ireland."

From the report of the Flax Society for this year, it appears that the value of the flax crop was estimated at £1,750,000.

1846.—A deputation, consisting of the President (the Marquis of Downshire) and the Secretary, waited upon H.R.H. Prince Albert, in October, with a view to explain the position and prospects of the Society, and to endeavour to obtain Royal patronage. On this occasion they submitted to Her Majesty the Queen specimens of damasks, cambrics and linens,—which had gained the medals of the Society at their exhibition in Belfast the previous year,—and requested the honour of their acceptance by Her Majesty. In the address which accompanied the presentation the following paragraph occurs :—

This Society, established in 1841, has introduced into Ireland the Belgian mode of managing the flax crop, in the growth and preparation for the textile manufactures, such as are now submitted for your Majesty's acceptance. Previous to that period the quality of the fibre was not such as to adapt it for these fine fabrics, which were then exclusively made of foreign flax, but the Society has now succeeded, by the improvements it has introduced, in enabling the manufacturers to substitute the home grown material.

The samples of Irish manufactures accepted by the Queen were damasks, made by Mr. Andrews at Ardoyne; cambric, by Mr. Henning, of Waringstown; and linen, by Messrs. Thomas M'Murray & Co., Dromore. Her Majesty the Queen and His Royal Highness Prince Albert afterwards consented to become patrons of the Society, which was then called "The Royal Society, for the promotion and improvement of the growth of flax in Ireland."

Many scutch mills were erected in 1846 in various parts of the south of Ireland, but by the failure of the potato crop, embarrassing both farmers and landowners, the Society had great difficulty in pursuing its labours, owing to curtailed receipts, and in obtaining supplies of foreign seed. They accordingly presented a memorial to the Government, and obtained a grant to assist in carrying on their labours. The high price to which food products rose, on the

failure of the potato crop tempted farmers, for years after, to sow grain more freely, to the neglect of flax.

In November, 1846, handscutched inferior quality flax sold from 6s 3d to 6s 6d per stone of 16 lbs.; middling, 6s 6d to 6s 9d; fine, 6s 9d to 7s 8d; milled flax, low middling quality, 7s 6d to 8s; middling, 8s 3d to 8s 9d; good, 8s 9d to 9s 3d; best, 9s 3d to 9s 9d; fine, 10s to 11s 6d; line yarns, 100's, 4s 9d to 6s 6d; tows, 25's, 5s to 5s 3d.

We cannot pass over this period in the history of our country without alluding to the failure of the potato crop, which produced such widespread distress at the time, and greatly retarded the development of trade and agriculture.

In 1845 there had been a partial failure of the crop, but the effects would not have been seriously felt had this not been followed by a sudden and total destruction of the national esculent in 1846. A writer,* who has given much attention to social and commercial questions relating to the well-being of Ireland, compiled a treatise on the condition of the country at this period, and some of the reforms he advocated were soon afterwards commenced. From the part he took, as one of the secretaries to the Central Relief Association of the Society of Friends, and his acquaintance with the circumstances of the times, he was able to furnish very full details respecting this period of national distress, and from the work referred to we extract the following :—

“The Summer of 1845 had been cold. It was said that there had been frosts at night, and to this cause some attributed the injury to the potato crop. The Summer of 1846, on the contrary, was unusually warm. The wheat appeared particularly fine, and the appearance of the potatoes was most favourable, when suddenly they seemed blasted, as if by lightning. The leaves withered, the stalks became bare and black, the whole plant was dead, while the tubers were in many places scarcely formed, and in no part of the country were the late potatoes fully grown. The crop was destroyed, and the food of a whole people was cut off. It now appears extraordinary that the alarm was not more immediate and more general. The calamity had proved less serious the previous year than had been anticipated at first, therefore, many hoped that the present accounts were exaggerated. Even those who saw that the crop was lost, could not believe that the consequences would be so serious. Perhaps none were able fully to anticipate the awful reality. . . . Ireland had lost in potatoes and in oats to the value of at least £16,000,000. The difficulty was greatly increased by the peculiar circumstances of the crop which had failed. It constituted the food of the great mass of the population, and it was essentially the property of the poor. Cultivated by their own hands, in their own gardens, it was their capital, their stock-in-trade, their store of food for themselves, their pigs, their poultry, and, in many cases, for their sheep and cattle. When it was gone they had no other resource. They had believed themselves comfortable, and felt secure of having enough of food, and now, by a sudden and unexpected dispensation of

* Condition and Prospects of Ireland. By Jonathan Pim (late M.P. for Dublin).

Providence, they were at once reduced to poverty. The first frightful tales of suffering which burst on us from the wild and ill-cultivated districts of the west, were quickly echoed from the richer and more fertile counties of Leinster. The distress extended itself among the industrious manufacturing population of Ulster, and the artisans and workpeople of the towns and cities. Want and misery spread throughout the land. The following statement of distress in a manufacturing district of the County Armagh is extracted from a letter, addressed by a clergyman of the Church of England to the Relief Committee of the Society of Friends. It is dated February 23, 1847 :—‘ The population of this parish has been hitherto chiefly supported by weaving, carried on in their own houses. The weaver at present can only earn, by weaving a web of sixty yards, two shillings and sixpence to four shillings and sixpence, which employs him nearly a whole week in preparation, while at present prices such wages will not support the mere weaver without a family. Even with such wages, I can state it as a fact, having come under my own immediate observation, that weavers are sitting up three nights per week, in order by any means to procure food for their families. There is scarcely a family in the parish in which there is not one or more members of the family sitting up nightly. I have seen them on returning to my own home (from visiting the sick) at two a.m. working as busily as in the day time. In several cases I have relieved individuals in their own houses, who, from exhaustion had been compelled to lie down, and could no longer continue to work at the loom. This has been, and is now, the only means of employment. There are no private or public works carrying on, or about to be carried on in the district, and even this mode of scanty and insufficient employment is now rapidly ceasing.’ (Then follow very harrowing details.) One of the poorhouses of the district—Lurgan—is shut for egress or ingress ; seventy-five died in one day. In Armagh poorhouse forty-five die weekly, &c. We are, in short, rapidly approaching, and, if unassisted, must arrive at the worst of the pictures that have been presented to the public from the County of Cork.”

Many and large were the contributions which were sent to the country at this period of national distress ; and Ireland should never forget with what a liberal hand England came to the rescue. Among foreign contributors, America stands forward by her noble donation of food and money, and from Continental countries and far off islands the sympathies of a common brotherhood were called forth. In our own country many philanthropists came to the front, and notably among them, members of the Society of Friends, in that broad spirit of Christian benevolence which has ever characterised that body, and did great service at this sad and distressing period. But with all the exertions used, the wants of three millions of people was a question which taxed to the utmost all the resources then available, whilst the melancholy fate of thousands of our people, struck down by famine and fever, marks this as a time of terrible disaster and suffering.

A mass of information is supplied by Mr. Pim respecting this period of dreadful distress, which—though now reading of what took place thirty years ago—produces such a sickening feeling that we turn with a sense of relief to the picture of prosperity which

our country presents to-day ; and though our staple trade, like many others, has been passing through one of those epochs of commercial depression which come to all, our artisans and work-people generally are well paid, comfortable, and independent ; and whatever drawbacks do exist they have been felt more by the capitalist than the labourer.

The consequences of the famine were disastrous to the trade and commerce of the country. The poor were unable to do more than provide themselves with food ; the small shopkeepers in the country towns lost their trade ; landlords to a large extent not only lost their rents, but were saddled with enormously increased rates for the relief of the poor, which in many instances swamped their property. The agricultural and manufacturing industry was paralysed, and the want of employment added greatly to the universal distress, which, in a greater or less degree, affected every rank and class.

In alluding to the domestic manufactures of Connaught Mr. Pim said :—

“ The peasantry of Connaught usually make their own clothing, consisting of linen, knitted stockings, a coarse but very serviceable flannel for women's clothes, and a good frieze for men. . . . These articles were regularly offered for sale in all the markets and fairs of the West, and formed no inconsiderable source of traffic. They constituted a domestic manufacture, which having existed from time immemorial, still maintained a precarious existence, in competition with the cheaper but less durable fabrics of England. The fleece of his own sheep, spun and woven in his own house, at seasons when otherwise he would have been unemployed, enabled the cottier and peasant farmer to provide comfortable clothing for his family, which was hardly possible for him to obtain in any other way. Such a manufacture must, no doubt, eventually yield before the spread of that civilisation which, in the division of labour, restricts each individual to one occupation, and thus increases his capabilities and his skill ; but it would be a cause of much regret if the present circumstances should destroy this ancient home manufacture before the natural period of its decay. There is much danger that the looms and spinning wheels which have been broken up or sold may not be replaced, in which case the industry of our Connaught peasantry will be even lower than it has hitherto been.”

These anticipations were fully realised, as the manufacture never recovered the blow which it received at this period. After detailing the condition of Ireland, the author, in succeeding chapters, reviews the industrial resources of the country—the woollen, cotton, and linen manufactures—much of which possesses interest, but space will not allow more extended extracts.

The prospects of a scarcity of flax at this time, and the small supplies on hand of both home and foreign material, contributed to embarrass the linen trade in 1847. To prevent the export from Belgium, the Government of that country imposed a duty of £10 a ton on all flax shipped ; the result was that some of the mills in

Ireland were obliged to stop for want of the raw material. From returns for 1847 it appeared that the acreage of flax was 58,312. Complaints were pretty general at this time respecting the high protection duties imposed by Continental countries on our linen manufactures, owing to which they were in a great measure shut out of these markets; but looking to the march we stole upon them in our export trade with countries from which they long derived a rich return, it is not surprising that, whilst endeavouring to regain their balance, they practically denied us all share in their home profits.

1848.—In January of this year line yarns No. 100 ranged from 4s to 5s 6d. Tow No. 25, 4s 6d to 5s. Inferior hand-scutched flax, 4s 3d to 4s 6d; best, 5s 6d to 6s 6d. Low quality milled flax, 5s 3d to 5s 9d; fine, 8s 6d to 9s 6d per stone of 16lbs.

1849.—Trade began to revive this year, and the quantity of land sown with flax-seed exceeded the preceding year by some 6,400 acres. The exports of linen yarn and linen goods also showed a very large increase, compared with 1848, and trade kept steadily improving for several years.

On the 11th of August Her Majesty the Queen and His Royal Highness Prince Albert, on the occasion of their first visit to Ireland, came round by sea from Kingstown to Belfast. On landing, Her Majesty was received by the Mayor, Mr. William Gillilan Johnson, and the various officials, and representatives of local bodies, officers of state, &c., and met with an enthusiastic reception by the inhabitants of Belfast. On this occasion, the honour of knighthood was conferred on Mr. Johnson by Her Majesty.

From the newspaper reports we give an account of the Exhibition of flax products—held at the White Linen Hall—specially got up for Her Majesty's inspection.

Messrs. S. G. Fenton & Co. and Sadler, Fenton & Co. (now Fenton, Connor & Co.), having placed at the disposal of the Managing Committee their rooms in the Linen Hall, the various specimens were displayed therein to the best advantage.

"The Queen and Prince Albert drove in the carriage of the Marquis of Londonderry, and arrived at the Linen Hall at five minutes to three o'clock.

The President of the Royal Flax Society, the Marquis of Downshire, led the way through the Exhibition. The floors of the long passages were carpeted with yard wide bleached damask, edged with crimson cloth . . . the floor of each room being covered with unbleached damask . . . the tables were covered with blue, which was in keeping with the walls. In the general plan of the exhibition the committee endeavoured to show every stage of the flax plant in its natural order.

The first room contained samples of flaxseed, and its products—linseed oil and cake for feeding cattle; flax in various stages of growth, &c. Second

room had series of samples of scutched home and foreign flax, the home fibre being so arranged as to show the improvements effected by the society in regard to the treatment of the flax. Third room contained samples of hackled flax, both Irish and foreign, also samples of dressed flax. Fourth room had samples of yarns, both line and tow, and also sewing thread. The mill-spun yarn ranged from $1\frac{1}{2}$ lea to 400 lea, and hand-spun from 240 to 800 lea. The threads were shown both bleached and dyed. Fifth room contained several articles of flax manufacture, not otherwise classified, such as a delicately-worked scarf of fine mill-spun yarn, half bleached to imitate colour of Mechlin lace; woven shirt fronts; flax tubing, woven without seam; patent flax belting; medical huck towels, mats, rugs, &c., made of tow yarns. Sixth room contained a large number of samples of unbleached goods of all descriptions, such as plain bleaching cloth, diapers, hollandes, drills, huckabacks, sheetings. In rooms seven and eight the bleached linens were laid out. Room nine contained specimens of brown damask of beautiful design. Room ten had bleached damasks. Room eleven—assortment of cambric handkerchiefs, bleached and unbleached, printed handkerchiefs, and linen cambric dresses; and room twelve exhibited printed lawns and cambrics for ladies' dresses, hem-stitched handkerchiefs, &c.

Among the exhibitors of flax, linen yarn, and linen goods of all descriptions, we find the names of Messrs. Michael Andrews, Royal Factory, Ardoyne; James Brown, Waringstown; J. Brown & Sons; William Barbour (now William Barbour & Sons), Lisburn; James Coulson, damask manufacturer to Her Majesty, Lisburn; J. & W. Charley & Co.; Dunbar, Dicksons, & Co. (now separate firms, Dicksons, Ferguson, & Co., and Wm. Spotten & Co.); Dunbar, M'Master, & Co.; Thomas Ferguson & Sons; Gradwell, Chadwell, & Co., Drogheda; John Henning & Sons, Waringstown; William Kirk & Son, Keady; A. Mulholland & Sons (now York Street Flax Spinning Co., Limited); S. K. Mulholland and Hinds (now John Hind & Sons); James Malcolm, Lurgan (now Malcolm & Pentland); T. M'Caw; John Preston & Co.; J. J. Richardson, Lisburn; Richardson & Co., Lisburn; J. N. Richardson, Sons, & Odwen; Sadler, Fenton, & Co. (now Fenton, Connor & Co.); and several other firms, some of whom are not now in existence.

Mr. Preston had charge of the room in which the prepared flax was, and her Majesty appeared greatly interested, and made several inquiries of him; and when he exhibited the specimens of flax grown on Prince Albert's Flemish farm, her Majesty turned to Prince Albert, and appeared at once surprised and gratified.

In addition to the exhibition of flax products, there was also an exhibition of sewed and embroidered muslins, the specimens being greatly admired by the Queen, who selected several of them. Mr. J. Lindsay (R. Lindsay & Co.), J. Holden, S. R. Browne, &c., contributed to this department, which was under their care.

On leaving the exhibition, the Queen expressed to Lord Downshire, as President of the Flax Society, the great pleasure she had experienced in witnessing so interesting an exhibition of the staple industry of the province.

During the Queen's visit to the exhibition, Lord Downshire stated to her Majesty that the Society would be happy to present to her any specimens of flax fabrics which might be pleasing to her. Her Majesty having expressed her willingness to accept them, his Lordship laid aside the articles which more particularly attracted the Queen's or Prince Albert's notice. Two parcels of goods were afterwards made up, and carried by members of the Committee to the yacht *Fairy*.

The following is a portion of the address which was presented, on this occasion, to the Queen by the Royal Society:—

“It is with feelings of lively satisfaction that we receive your Majesty, in

a building erected by the merchants of Belfast, for the purposes of the linen trade, to exhibit to you therein some specimens illustrative of our staple manufacture; and we feel assured your Majesty's visit will act as a useful stimulus to those engaged in the various arts by which our native productions may be advanced and improved. In condescending to become patron of this Society, your Majesty has recognised the importance of our labours in developing one of the great national resources of this country, by promoting the cultivation, on Irish soil, of a plant which, in its subsequent manufacture, affords so much employment to the Irish population. We feel an honourable pride in directing your Majesty's attention to the happy influence which the linen trade has exercised, in contributing to raise the Province of Ulster to that comparative position of prosperity, which contrasts so favourably with the distress and misery, the existence of which we deplore, in other parts of Ireland. We have been sedulously labouring to extend the culture of the flax plant to those poor and remote localities, as the four or five millions now annually paid to foreigners for the material would, if expended at home, by exerting feelings of self-reliance amongst the people, tend to show them that the valuable resources of the country are amply sufficient, if fully developed, to support her population, and would prevent them from looking for eleemosynary relief from strangers. From the sowing of the seed to the finishing of the fabric, all the operations connected with the plant are performed at home, affording employment alike to the farmer, agriculturist, labourer, and artisan, creating an intelligent, enterprising middle-class of manufacturers, the want of which is so much felt in other districts in Ireland, and the exportation of the products contributing to the employment of a mercantile navy, affording an item of exchange for the production of foreign countries."

1850.—From the report of the Factory Commissioners, dated July, 1850, we find that the number of spindles in Ireland had reached to a very respectable figure, and was in excess of those of both England and Scotland, though the numerical strength of the mills was considerably less, the average number of spindles was much in excess of those of Great Britain. Ulster farmers had fairly recovered from the losses suffered during the famine years, and were able to devote more time as well as a wider area of land to the culture of flax. The crop turned out favourably, prices were remunerative, and the buyers were well pleased with the quality of the fibre; demand for yarns was very active, every bundle thrown off the spindles found ready sale, and manufacturers and bleachers had no cause of complaint, either in reference to the home or the export trade, which showed most gratifying results.

The following is an abstract of the Factory Commissioners Report on Flax Spinning in the United Kingdom at this period:—

FLAX SPINNING MILLS.

	No. of Mills	Spindles	Motive power	No. of persons employed
In Ireland,	69	326,008	3,380	21,121
„ Scotland,	189	303,125	6,425	28,312
„ England and Wales, ...	135	265,568	4,487	19,001
	<hr/> 393	<hr/> 894,701	<hr/> 14,292	<hr/> 68,434

1851.—The improvement in trade since 1848 had made steady progress, and under the fostering care of the Royal Society the breadth of land sown had been rapidly enlarging, so that this year we find the acreage considerably more than double what it was in 1849. In the report for 1851 we find the following statement :—

“The present demand for flax in Ireland is about double what it was when the Society was established in 1841, when the Irish spinning trade numbered 250,000 spindles. Now they are close upon half a million. In place of 16,000 tons of flax, which was the estimated consumption in 1841, 32,000 tons are now required by the Irish trade. The entire consumption of the United Kingdom would at present require 500,000 acres of flax annually, and it is progressively increasing at a perfectly rapid rate.”

When the Flax Society was formed in 1841, the flax cultivated in Ireland was about 80,000 acres, but in 1843 the breadth had risen to 112,000, and in 1844 122,000 acres were under flax. In consequence of the scarcity of seed and unprincipled practices of some dealers, who made up old seed in foreign barrels, a partial failure followed, and a smaller breadth was sown the following year; the total area in 1845 being only 96,000 acres. In 1846 the crop both at home and on the Continent turned out much below the average, adding to the general distress which prevailed at that period. The consequence was that in 1847 we find the sowing was reduced to 58,312, and still lower in 1848, when only 53,863 were sown; but it took an upward turn again in 1849, when 60,314 were sown; 1850, 91,040, and 1851, 140,536 acres were sown.

During this year (1851) the Great Exhibition of all nations was opened in Hyde Park, London, and our merchants and manufacturers maintained the high reputation which the trade enjoyed.

When His Royal Highness, the late Prince Consort, conceived the idea of collecting together specimens of the art treasures of all nations, and exhibiting the triumphs of skill in ingenuity, whether in illustration of the great discoveries in the domain of science, or in reference to the appliances appertaining to our domestic economy, many difficulties were suggested, and doubts expressed, regarding the wisdom of the scheme, and feasibility of carrying it out. We are familiar with the details respecting the building itself, and the great name which its designer acquired, whilst the success of the undertaking is a matter of history, and the beneficial effects which resulted far exceeded the most sanguine anticipations of its originator. It has been said that the first idea the Prince got of this great project, which was carried to

such a successful issue, was suggested by the exhibition of the Royal Flax Society, on the occasion of the visit of Her Majesty and himself to Belfast in 1849. Be that as it may, we know that the scheme was matured soon after this visit, and Belfast, which produced such a creditable display in 1849, was not behindhand in furnishing evidence in 1851 of her manufacturing skill and native talent, in the field of enterprise in which she was now distinguished.

From the Jurors' Report (published in the official records of the Exhibition) on manufacturers of flax and hemp, we make some extracts, and find several Irish firms obtained medals and honourable mention.*

The names of the jurors were—Count F. E. van Harrach, of Prague, Chairman; Charles Tee, Barnsley, Deputy-Chairman; William Charley, Seymour Hill, Belfast, Joint Reporter; G. Lefevere, Ghent, Joint Reporter; — Legentil, Paris; John M'Master, Gilford; John Moir, Dundee; Carl Noback, German Commissioner; Alexander Scherer, Minister of Finance, Russia; John Wilkinson, J.P., Leeds

"The Royal Flax Improvement Society of Ireland have exhibited a very interesting series of patterns of flaxen manufactures characteristic of that country, comprising sacking, huckabacks, drills, ticks, linens, lawns, hollands, &c.

The Jury regret that the specimens of good flax from Ireland are so few in number. Those exhibited by Messrs. Bernard & Co., of Belfast, and retted on Schenck's patent hot water steeping process in sixty hours, are the best samples; and those of Mr. Gailey, of Coleraine, retted on the cold water principle, are good specimens of the material prepared in that way. Both are worthy of commendation, and the Jury make honourable mention of them. . .

The Jury awarded prize medals to the following Irish exhibitors in the various sub-divisions:—

Michael Andrews, Ardoyne, Belfast, for excellence in double damask tablecloths and napkins; Clibborn, Hill, & Co., Banbridge, for an excellent assortment of bleached diapers; James Coulson & Co., Lisburn, for an extensive and admirable exhibition of fine, well-made damask tablecloths and napkins; John Henning, Waringstown, for damask tablecloths of superior patterns and quality, bleached, brown, and mixed colours; Wm. Kirk & Son, Armagh, for brown linens of low descriptions and prices; hollands, brown, black, and slate coloured, &c.; Thomas M'Cay, Dromore, for an exceedingly fine piece of fronting linen, made of mill-spun warp and hand-spun weft, exhibited brown; Thomas M'Murray & Co., Dromore, for a superior assortment of fine linens, bleached; J. N. Richardson, Sons, & Owden, Belfast, for a superior assortment of light shirting linens for export, bleached; Sadler, Fenton, & Co. (now Fenton, Connor, & Co.), Belfast, for a superior assortment of heavy shirting linens, for home trade, bleached.

The Jury made honourable mention of the following exhibitors:—T. Bell & Co., Lurgan, for a good assortment of cambric handkerchiefs; Bernard & Co., Belfast, for good hot water steeped flax; Corry, Blain, & Co., Belfast, for good damasks, made with power-looms, and a beautiful and novel design, on paper, for tablecloth, not yet executed in cloth; William Coulson,

* Mr. Charley, in his work on "Flax and its Products in Ireland," gives the Jurors' report in full.

Lisburn, for a very fine damask cloth ; D. Gailey, Coleraine, for flax steeped upon the cold water system ; John Henning, Waringstown. Honourable mention is here made, as this exhibitor is awarded a medal for damasks, which also includes the variety of cambrics and printed goods he has exhibited in this sub-division. J. Malcolm, Lurgan, for a good variety of bleached lawns and handkerchiefs ; J. & T. Richardson & Co., Lurgan, for cambric handkerchiefs ; Richardson & Co., Lisburn, for excellency of bleach, shown in fine linens ; Royal Flax Improvement Society of Ireland, for the specimens before mentioned (Council medal awarded in Class IV).

The Jury awarded the sum of £10 each to the following :—Ann Harvey, Belfast, for perfection and quality of hand-spun flax (exhibited by Royal Flax Society) of about 600 lea ; Jane Magill, Belfast (84 years of age), for fine hand-spun flax yarn of 760 lea, also exhibited by Flax Society.

In October of this year a deputation from the Flax Society waited upon the Lord Lieutenant (the Earl of Clarendon) at the Vice-Regal Lodge, Dublin, for the purpose of presenting him with an address and testimonial, in recognition of his exertions on behalf of the society. The deputation consisted of the Marquis of Downshire, President; the Earl of Erne, Vice-President; Very Rev. the Dean of Ross; W. Sharman Crawford, M.P.; S. K. Mulholland, William Dargan, William Coates, John Charters, John Herdman, James Grimshaw, jun., James Campbell, John M'Master, John Hancock, Robert M'Kibben, M.D., and James M'Adam, jun., Esqrs.

In the address, which the Marquis of Downshire read, we find the following paragraphs :—

"We have been deputed, by a number of members of the Royal Society for the promotion and improvement of the growth of flax in Ireland, to beg your Excellency's acceptance of a silver vase, a set of damask table linen, and a case of cambric handkerchiefs, as a slight but sincere testimony of our appreciation of your exertions, to advance the great material object which we have in view. . . . That portion of the presentation which consists of the finest linen fabrics made in Ireland, represents the products of the great and flourishing textile manufacture, whose twofold connexion with the agriculture and commerce of this country has been often adverted to by your Excellency, and whose future progress you have strenuously endeavoured to aid by encouraging a more careful and extended home production of its raw material, and by giving your influence, both as a member of Parliament and an individual, to the freer admission of its products among foreign consumers. To the piece of plate which accompanies these articles the artist has endeavoured, through one of the materials employed, and by the general design, to give both a particular and a national signification. Several ornamental details, both of the vase and of the woven fabrics, have been furnished by pupils of the Belfast Government School of Design, for the foundation of which the town is chiefly indebted to your Excellency's good offices."

In reply, his Excellency said—"It is impossible to see without surprise and regret the vast annual importation from abroad of a raw material, for the production of which the soil and climate are eminently suited, and with respect to which experience has proved that foreign rivalry need not be apprehended. I accordingly could not hesitate to aid by every means in my power the patriotic and meritorious labours of the Royal

Flax Society of Belfast in extending the growth of flax, and thus to bring the agricultural and manufacturing interests of Ireland into harmonious action with each other, and to give to the land its share and its profit in those manufactures, which have been carried to perfection by the national skill and industry, and for which, throughout the markets of the world, there appears now to be an unusually increasing demand. With such fabrics as that of which, through their kindness I now possess so beautiful a specimen, the manufacturers of Ireland may fearlessly challenge all competition." . . .

1852.—We next find that the Society applied to the Government for a continuance of the grant of £1,000 per annum, which since 1848 had been given to them for the purpose of paying flax instructors, sent out through various parts of Ireland, particularly the south and west, and owing to the exertions of the next Viceroy (the Earl of Eglinton) they succeeded in getting it continued.

Great efforts had been made to revive the cultivation of flax in the County of Cork, and a local association, formed at Bandon, ably supported by the noblemen and gentlemen of that locality, effected much good, and after a trial of four years the Society was able to congratulate the flax growers of the district on the success which followed their exertions; for it appeared that the specimens forwarded to Belfast had shown that the flax grown about Bandon could bear comparison with that grown in any part of Ireland. Though the extent of land under flax in the County Cork in 1852 exhibited a falling off compared with 1851 (which was an exceptionally large average) the breadth for 1852 was more than double that of 1850.

The Earl of Eglinton and Winton, Lord Lieutenant of Ireland, visited Belfast this year, and the Royal Flax Society presented him with an address in the library of the Linen Hall.

Early in the year a Committee was formed, under the sanction of the Belfast Chamber of Commerce, with a view to take steps to supply information of general interest to the trade, and for the purpose of drawing up a weekly Circular, for private circulation, which would fairly represent the state of business from week to week, and be a more reliable chronicle of the trade than newspaper reports could possibly be. Also to collect statistical information, prices, &c.; and furnish information relating not only to the home trade, but also as to the position and progress of linen manufacturing on the Continent; the state of trade in various foreign markets, as affecting the home demand, and thus form a recognised official publication, for the general benefit of the Irish linen industry. The first number was issued on Friday evening, February 20th, 1852, and the Circular was regularly published each Friday evening down to 17th March, 1856, when, in order to secure more complete information for it, the day of publication

was changed to Monday evening, which has been the day of issue ever since.

In the first number, we find it stated that the country markets were well supplied with flax ; and under head of linen yarns, that the mills were at full work ; stocks in spinners' hands moderate ; rather under an average, and that a steady demand from manufacturers had hitherto prevented accumulation. The demand for export had improved, and was then good. Value of 55's to 80's wefts, 3s 6d per bundle, with $7\frac{1}{2}$ per cent. discount, and prices stationary. Brown linens in country markets were reported as without much change. White linens—Stocks generally moderate. The demand for the home market fair ; but light linens for export were dull. Prices remained without change. Advices from abroad reported Mexico and Havanna markets as dull, especially the former. The opening of the Spring trade in the United States had been retarded by the unusual severity of the weather, and this affected the Irish brown markets, as exporters could not calculate on the extent and tendency of sales across the Atlantic.

Spinning by machinery having made rapid progress of late years, an estimate is here given of the comparative position of the trade at home as well as on the Continent at this period :—

Estimated Spindles in Ireland, ...	...	...	500,000
England, ...	...	...	265,568
Scotland, ...	...	...	303,125
			<hr/>
			1,068,693
ON CONTINENT—			
France, ...	...	...	350,000
Belgium, ...	...	...	100,000
Germany, ...	...	...	80,000
Russia, ...	...	...	50,000
Austria, ..	...	...	30,000
Switzerland, ...	...	...	8,000
Holland, ...	...	...	6,000
Spain, ..	...	...	6,000
			<hr/>
Estimate for Continent, ...	...	...	630,000
Do. United States of America,			14,550
			<hr/>
Total, ...	...	...	1,713,243

Up to 1850—as appeared by the Factory Inspectors' report—whilst Scotland had gone into weaving by power, and had some 2,529 looms running, and England had 1,131, there were only 58 in Ireland. The great cheapness of labour in Ireland had deterred capitalists from embarking in factories for weaving by power, but the famine, followed as it was by a large stream of emigration, produced

such a revolution in the condition of the working classes that the cost of production to manufacturers was enhanced, so far as wages were concerned, some 20 to 30 per cent. at this period. The spinning power was also running beyond the manufacturing, so that yarns in the early part of 1852 were in such slow request, that in June about 120,000 spindles were working on short time; however, when the weavers returned to their looms, after the field work in July, the mills were in full operation. The power-loom, when first applied to the production of flaxen goods, was only capable of working the coarsest and heaviest descriptions of cloth, for owing to want of that elasticity in flax yarns which cotton possessed, it was a long time before the difficulties, which stood in the way of substituting power for hand labour, could be overcome. The subject was now, however, forcing itself upon the trade, and the importance of supporting the spinning branch was also becoming more strongly recognised.

In November, 1852, a proposition was made by a writer in the Linen Trade Circular, that some 10 or 12 firms should join in getting up in Belfast, or the neighbourhood, a factory of 120 looms, to cost £3,000 or £4,000; the concern to be let to some good manufacturer at a fair rent, or wrought for the owners; provision being made that within five years, or three years, or sooner, the establishment should be sold and the company dissolved. This letter drew on a correspondence, from which it appeared that the difficulty lay in there not having, to that time, come under the notice of the trade a thoroughly good and efficient description of loom. One writer said, "It is true there are power looms at work, here and elsewhere, capable of weaving certain kinds of linen, but what is required is a power loom that will weave ordinary qualities of linen yarn into ordinary descriptions of linen cloth; and so far as he was aware no power loom had yet been erected which would accomplish this." A suggestion was then made that a prize of £1,000 should be offered for the best power loom which should be first produced in Belfast, with warping and dressing apparatus complete.

The attention thus drawn to the subject led to the holding of a large meeting of the trade, at the offices of the Royal Flax Society, when a committee was appointed to collect information regarding the looms then in use, and to take further steps in the matter.

The general aspect of the trade for 1852 compared favourably with the preceding year, but the manufacturing branch was in a more satisfactory state than the spinning. In reviewing the position of both during this year the Circular stated that "The discovery of new gold regions, and the buoyancy of the money

market added to the general healthy state of trade and tended throughout the year to create facilities for the application of capital, and to give a wholesome tone to business transactions. The full employment of all those classes of the community who depended on trade for their support, and the excellent yield of the principal crops, together with advanced prices for all agricultural products, had a very beneficial effect on the home demand for linen, which exceeded all former years. The condition of foreign markets was also improved, and the exports of linens and yarns both showed an increase, although this increase was much greater in the latter than the former."

Wefts which at beginning of year, from 55's to 80's, were 3s 4½d to 3s 6d, sold freely at close of year from 3s 10½d to 4s.

1853.—In May of this year we find that trade had shown much briskness. Brown cloth at the country markets was in good demand, and bleached goods were also moving off freely. The great improvements effected in the bleaching process enabled merchants to get round their goods very much quicker.

An Industrial Exhibition, promoted by the late William Dargan, was held in Dublin this year, on which occasion her Majesty the Queen and his Royal Highness, the late Prince Consort, visited it; and in recognition of the distinguished abilities of Mr. Dargan, and of his munificence in erecting, at his own cost, the Exhibition building, and for the success of the undertaking, her Majesty paid him a private visit at his country seat; the first visit, it is stated, which had been paid by a British Sovereign to a commoner in modern times.

Among the various sections on textile products, we find, in the official records of the Exhibition, one on the manufactures of flax, and in connection with an excellent article on the subject—written by Mr. Macadam, the Secretary of the Royal Flax Society—the names of the following firms appear, amongst others, who were contributors to this department:—

Michael Andrews, Royal Manufactory, Ardoyne, Belfast, super-extra double damask tablecloth, the "Clarendon Pattern," the shamrock and flax plants, interwoven with each other—also, two table napkins to match, one with, and one without sprigs. This pattern was specially designed for the table linen presented by the Royal Society to the Earl of Clarendon, when Lord Lieutenant. Super-extra double damask tablecloth, the "Ardoyne Exhibition Pattern," a very rich pattern, composed of a great variety of flowers from nature, grouped in a new style, with two table napkins to match. Double damask tablecloth, new pattern, the "Fern Rustic Pattern," composed of a great variety of ferns picturesquely grouped; table napkin with coat of arms, and another with emblems of Ireland. Thomas Bell & Co., Bellevue, Lurgan, manufacturers—Cambric handkerchiefs bordered, printed, hemstitched, tucked, and embroidered (in the loom); printed dresses, also embroidered (in the loom).

Clibborn, Hill, & Co., linen merchants and bleachers, Banbridge, manufacturers—Bird-eye diapers, manufactured from prime linen yarn.

James Coulson, & Co., Lisburn, manufacturers—Specimens of superfine damask tablecloths, napkins, appropriately ornamented with armorial bearings, badges, devices, and inscriptions, similar to those prepared for her Majesty and the leading nobility and gentry.

Fenton, Son, & Co. (now Fenton, Connor, & Co.), Linen Hall, Belfast—Case of linen fabrics ; prize linen of the Exhibition of 1851 ; family and light linen, for the home and foreign trade.

Gradwell, Chadwick, & Co. (St. Mary's Flax Spinning Co.), Drogheda, manufacturers—Linen yarns, 100 to 520 lea, in different stages of manufacture, from Irish and Courtraï flax.

Harrison, Brothers, Dromore, County Down, manufacturers—Linen shirt frontings, in various patterns, all woven in the loom ; frontings, embroidered, veined, printed, &c.

William Kirk & Son, Annvale, Keady, County Armagh, manufacturers—Rough brown linens, linen Hollands, bleached linen diapers, lining, family and fronting linens, unions.

J. Leadbeater & Co., Belfast—Specimens of yarn and linen ; cloth manufactured of flax, prepared by the patent process of exhibitors.

H. Murland, Castlewellan, bleacher and producer—Irish linens for the United States market.

Royal Flax Society, Belfast—Line rovings for 130 lea and 260 lea yarns ; line and tow yarns from 6 lea to 280 lea ; specimens of unbleached and bleached fabrics, including heavy and light linens, drills, diapers, damasks, lawns, cambrics, mosquito netting ; specimens of fancy, dyed, or printed fabrics, including drills, bedticks, floorcloths, lawns, cambrics, linens ; case of specimens of linen yarns, &c., the manufacture of Messrs. Gradwell, Chadwick, & Co., Drogheda ; case of specimens of linen fabrics, &c., the manufacture of Messrs. John Hind & Sons, Belfast ; specimens sent in 1774 to the Society of Arts, by Lady Moira, comprising—coarse wrappings for linens for furniture from the backings of tow ; coarse dimity for upper petticoats, and a piece of Lady Moira's own gown.

In October the Belfast Chamber of Commerce, on behalf of the linen trade, memorialised the Government respecting the United States tariff on linen manufactures, praying that representations might be made to the Government of that country for a remission of the duties same as between the period from 1832 to 1842. Previous to 1812 the duties were 5 per cent., but they were then raised to 37½. In 1832.—The duty on linen goods was abolished. In 1842.—25 per cent. was put on, which was afterwards reduced in 1846 to 20 per cent., at which it stood in 1853. The Foreign Office instructed Her Majesty's representative at Washington to support the prayer of the memorial, but the efforts used were unsuccessful.

The general position of the manufacturing branch was most satisfactory this year, and showed a steady progressive movement. The acreage of land sown with flaxseed was considerably more than a fourth over that of 1852. The yield of Irish flax for 1853 was estimated at 43,374 tons, which, as the produce of 174,000 acres, exceeded that of any season from the commencement of the Flax Improvement Society's labours in 1841. In addition to the supply of home grown seed the foreign imports for 1853 were

about 94,146 tons. The spinning branch was, however, not remunerative this year, production being still in advance of the manufacturing power; yarns were depressed, and during November and December a large number of spindles were running only $\frac{3}{4}$ time. The number of power looms had increased from 58 to 218; but as at this period weaving by power was still on its trial the progress in developing that branch of the trade was slow up to this point; however, great improvement having been effected in the powerloom it was in contemplation to set up 1,103 looms next year. In closing the review of the trade for 1853, the Circular records that "the year was memorable as that in which the last remnant of import duties on foreign linen manufactures which had been much reduced at previous intervals, were swept away by the Chancellor of the Exchequer; and in which the United Kingdom entered into a perfectly open competition in every article with the countries of the globe, and that were this example followed by other states much advantage would accrue to the trade of Great Britain and Ireland as well as to the population of all countries which consume linen." It was also noted, with satisfaction, that of late years although the Zollverein States had increased their import duties on this article, Holland and Belgium, Spain and Portugal, Sardinia, Austria, Russia, and Norway had relaxed them to a greater or less extent. The Government of the United States had recommended to Congress a total abrogation of duty on the import of flax and linen fabrics, a measure which, if carried out, would be of vast advantage to our linen trade. Exports to the colonies were also increasing steadily; those of Australia to a very surprising extent. Finally, the prospects of the trade, as drawn from the augury of the past year's events, were promising, and though temporarily embarrassed, its high state of efficiency, and constant efforts at improvement inspired confidence in its innate power to secure a future progress equal at least to the past.

1854.—In March of this year difficulties in the East led to a war with Russia, the immediate effects, so far as the linen trade was concerned, being the enhanced value of flax, which was followed by a little improvement in demand for yarns, but which was not maintained, and cloth was but slightly affected. The prospect of supplies of the raw material, so far as Russia was concerned, being cut off, caused for a time much uneasiness throughout the trade. Prices of Irish flax, while the panic lasted, ran up to £63 per ton, which in the previous year brought only £56, and in 1852 £50. In May demand for yarns was much less active, and as flax had reached so high a point, the spinning department was losing heavily. The panic, however, regarding flax, did not last very long; and in the course of the summer, when it was ascertained that supplies

from Russia would come through Prussian ports, Irish flax dropped in a short time about £12 per ton, but recovered to the extent of about £5 by the close of the year. The year altogether was a most unfavourable one to the trade. The Circular stated—"The spinning trade suffered much during this year. Nine firms, representing about 39,000 spindles, stopped payment, and several of their mills were idle. About 65,000 spindles in other mills were standing, so that at that time between a fifth and a sixth of the entire spinning machinery of Ireland was not at work. The year began with short time (45 hours per week), which measure was continued by about 370,000 spindles until late in February. Full time was then resumed until the beginning of November, when a considerable proportion of the Belfast factories again went on short time. Towards the close of the year, however, symptoms of a better demand for yarns having appeared, full work was generally resumed. With scarcely an interval of animation, the demand for yarns throughout the year was very languid, both on home and export account. As might have been anticipated, considering the state of trade, no new mills were erected in 1854, and the additions made to existing ones only reached to 6,222 spindles. In yarns the fluctuations in prices were but trifling, but the leading numbers of weft were throughout the year selling at 3d to 4½d per bundle under the average of 1853, whilst the increased cost of the raw material combined to make it one of the most unsatisfactory years to spinners that had been remembered."

In the manufacturing department a languid demand was observable during the greater part of the year, so that manufacturers considerably reduced the number of hand-loom weavers which they employed, this forced a large number to enlist, and also to emigrate, whilst the general dulness of trade stopped for a time any further extension of power-loom weaving.

1855.—It is recorded this year that a Frenchman having invented a loom, on the principle of Jacquard's patent, had adapted its mechanism to a system by which the looms could be worked by electro-magnets. Great interest was manifested with regard to it; however after a few trials the invention was not found to be of any practical advantage, and the matter was soon after quite lost sight of.

The Exhibition in Hyde Park resulting in such success, stimulated other countries to follow the example. Accordingly we find that Paris was the centre of attraction this year, and as usual the Royal Flax Society put in an appearance, having contributed samples of the fibre in different stages of preparation. Messrs. John Preston & Co. exhibited flax from different districts of Ireland; Messrs. W. Ewart & Son; Herdmans & Co.; Wolfhill Spin-

ning Co.; John Hind & Sons; Johnston & Carlisle (now Brookfield Linen Co., Limited), and J. Preston & Co. exhibited linen yarns; and John Hind & Son, Jaffé Bros., Johnston & Carlisle, York Street Flax Spinning Co., Fenton, Son & Co. (now Fenton, Connor & Co.), J. Preston & Co., J. N. Richardson, Sons & Owden, Michael Andrews, Clibborn, Hill & Co., and other firms exhibited samples of linens and damasks, &c., both brown and bleached.

A deputation, appointed by the Belfast Chamber of Commerce, visited Paris in September, and reported on the linen machinery and linen manufactures which were exhibited. From this report we find they stated that—

The linen machinery exhibited was not extensive. Some power-loomes for weaving linen deserved attention, as the trade must soon adopt this system of weaving in order to keep up a regular supply and uniform quality of goods. . . . France was well represented in her linen goods, which were in almost every instance of excellent quality; they had little starch or finish; made of a firm round thread of yarn; and, although well adapted for immediate use, were not so slightly as Irish linens. . . . The linens of Hanover were well represented. . . . Wurtemberg, Saxony, and Rhenish-Prussia exhibited a great variety of fabrics, from the coarsest to the finest. The lower and medium goods were similar to our own; but they exhibited specimens of very fine linen which, it was feared, our manufacturers would have difficulty in equalling, being made of fine hand-spun yarn, regardless of expense, for the Russian market. One piece, equal to a $4/4$ 38⁰⁰, was 15/- a yard; $4/4$ 28⁰⁰, 6/9; 26⁰⁰, 3/9; 24⁰⁰, 3/4. In the linens made for exportation they imitated the Irish marks and finish, and in many instances even the same paper ornaments as used by the Irish trade. This was an interesting phase in the history of the linen trade, that Germany, from whom we borrowed the name of a great variety of our linen fabrics, and still exported them under these names, was, in her turn, borrowing from us, and imitating our goods, both in names, material, and finish. Some of the Saxon damask was beautifully fine; but, in design, the Scotch and Irish goods were quite superior. Austria made a very creditable display of linens and linen yarns, the latter were particularly clean, and free from imperfections. . . . Belgium made a large display of goods, and appeared a formidable competitor. This did not refer to the finer linens and cambrics, for which at all times there must only be a limited consumption; but in the lighter export goods, lapped in the Irish form, and with Irish labels, the prices were quoted nearly as low as they could be purchased in Belfast. . . . The exhibition of linens and canvas from Dundee, and damasks from Dunfermline, were reported as highly creditable to the Exhibition, a considerable portion of the goods being woven by the power-loom. . . . The display of Irish goods was, however, on a limited scale, and the arrangement did not do justice to our important industry; and the report states that it would have been most desirable that our superiority should have been better displayed in a place where such a display might have led to important commercial advantages. . . . Still in price, colour, and finish, our Irish linens can compete successfully with any others exhibited in Paris. The report concluded by drawing the attention of our trade to the great efforts which Belgium and Germany were making to extend their export linen trade. We have already stated that they are imitating our finish and quality, they are also encouraging intelligent persons, from the neighbourhood of Belfast, to settle in both countries, to instruct them in the various processes of spinning, weaving,

and bleaching, and are in many instances introducing the power-loom, to cheapen production and improve quality. A general opinion appears to prevail that, as the power-loom gave a new impetus to the cotton trade, a similar effect will be produced when it is generally employed in the manufacture of linen. It will require our manufacturers, therefore, to see that our Continental neighbours do not get before them in the march of improvement; and we would recommend their adoption of every new principle of production that ensures economy and despatch, and so by progressive advancement maintain the advantageous position they now possess.

This Report was signed by Messrs. John Herdman, James Grimshaw jun., and John Patterson.

The Royal Society reported that the flax crop for this year had been considerably less than the preceding year; the causes being stated that farmers were disheartened by the turn out of 1853 and 1854, and the good prices which they realised for their cereal crops, owing to the war.

From the report of the linen trade for 1855 we learn that, while manufacturers, bleachers, and shippers did a more satisfactory business than in 1854, spinners, except in particular classes of yarns, had a very unremunerative trade. The high cost of flax, and the indifferent spinning quality of the Irish crop of 1854, were both very adverse to them, while the caution exercised throughout the year by manufacturers, and the reduced makes of goods, caused a languid demand for yarns, and maintained prices at a low point, when put in comparison with the price of the raw material. A scarcity of weavers had been felt throughout the year, and wages rose at least 10 per cent. Although the trade had been healthier than in 1853, it did not participate in the prosperity extended to Scotland, the leading fabrics made in Ireland not being of that heavy, coarse class so largely required for the Government contracts. . . . Power-loom weaving was tried with varied, but, on the whole, satisfactory results. Several firms who had erected power-looms had succeeded in making a fair quality of light linens, at a price which would leave an additional margin of profit over hand-loom goods, and some being so well satisfied with these results, were about to increase their machinery.

1856.—The Royal Society had to report an increase of 10 per cent. in the breadth of land sown with flax this year; and if the treaty of peace with Russia had been concluded earlier in the season the Society expected the acreage would have been much larger, although the high prices of grain gave way more slowly than was anticipated. The grant of £1,000 was continued by the Government down to this period.

An average business was done throughout the greater part of the year, and a healthy tone pervaded all departments. In the

spinning branch there had been little change ; no new mills were erected, nor had any addition been made to the number of spindles. Flax was about £3 per ton cheaper than in 1855, and, on the treaty of Paris being confirmed, there was a good demand for yarns, although prices did not advance much over 1½d per bundle. Considerable progress was made in power-loom factories, about 25 firms being engaged in the trade, and 2,200 looms running. Many improvements were effected in the looms, in adapting them to weave light linens for export. A large proportion were running on drills, heavy linens and coarse goods ; and all were using common qualities of weft yarns, with superior warps. The *Circular* stated that "hand-loom weavers had become so scarce, and their wages so high, that were it not for the likelihood of power-loom coming more and more into use, the cost of production might be such as seriously to interfere with the prospects of the export trade, while there would be considerable difficulty in securing a sufficient make of goods."

1857.—From the report of the Royal Society we find that the hopeful anticipations indulged in that an increasing acreage of flax would be sown after the termination of the Russian war, were not fulfilled ; but, on the contrary, there was a decrease of upwards of 8,000 acres. This was accounted for by the high prices of grain which had been maintained since the close of the war, and also owing to the unremunerative character of the flax crops in previous years, together with a scanty supply, and high prices of foreign seed this year. The quality of the fibre was stated to have been above an average.

The manufacturing department was making a rapid progress, and between 700 and 800 power-loom had been set up, making in all 2,781, which were all in full operation, and preparations were being made for a large addition, when a financial crisis in America arose in October, which produced a paralysing effect upon trade at this side, and brought everything to a stand-still. Spinners held a meeting to consider the propriety of reducing production, and "from the 30th November, almost all the mills in Belfast and its neighbourhood, with many in the country, went on short time." The panic lasted for about seven weeks ; but at the close of the year a better feeling had sprung up. A review of the trade for this year concluded by stating that, "While, no doubt, our great staple manufacture had its share of trial and suffering, and while not only had spinners, manufacturers, and shippers all lost more or less money, but the working classes also felt the effects of the crisis very severely ; yet it is satisfactory to state that the trade has been in so sound a condition, that as few failures have occurred as during the same period of ordinary times. The trade had stood

the shock, and our banking institutions were never in a more prosperous condition. The manner in which the Irish linen trade had passed through this severe ordeal was such as to show its innate soundness, and to lead to the best anticipations respecting its future progress when matters at home and abroad regain their normal condition, and leave freer scope for its great and solid resources."

1858.—The extent of land under flax showed a further falling off this year, amounting to upwards of 6,000 acres, traceable to the better return which cereal crops still yielded; but, though the acreage was less, the yield was superior to previous years, which more than compensated for the short sowing. As there was a falling off in the Continental flax crops this season, in consequence of long-continued drought, prices of home fibre were much more remunerative to the farmers, and ruled very high, from the opening of the market to the close of the season, owing to the brisk export demand. Yarns were low in January, and only advanced 1½d in the first half-year; but towards the close of the year a good trade sprung up, following the tone of the flax market, and yarns sold at an advance of about 4½d to 6d a-bundle, on prices current in January. Line wefts, 75's to 120's, at close of year were 4s 6d, as a minimum, and tows, 25's, 6s 7½d to 7s 3d. Demand for cloth early in the year was dull; but, as spring advanced, an improvement set in, which was steadily kept up, and "the year closed with considerably higher values for all goods, with little or no stock in the hands of manufacturers, and, on the average, unusually light stocks with bleachers."

1859.—From an abstract of the returns respecting spinning mills and power-loom factories in Ireland, on the 1st of May, 1859, we find the following in the *Linen Trade Circular*:—

	spindles employed.	Spindles idle.	Total.
82 Flax-spinning Mills,	560,642	91,230	651,872
	Looms employed.	Unemployed.	
28 P.-L. Factories,	3,124	509	3,633

Although the acreage this year showed an increase of 49 per cent., the quality of the flax crop was inferior to that of previous year. Prices at close of 1858 had "advanced to a height rarely, if ever attained, since the general introduction of spinning by machinery," and during the early part of 1859 they went up still higher; in the course of the year a reaction set in, and, at the close, prices were much lower, though compared with quotations of yarns, were regarded as extravagantly high. Yarns slightly advanced early in the year, but subsequently fell, and a drop of

9d on ordinary line wefts, and 6d on tows, was recorded as the difference between commencement and close of the year. Manufacturers appear to have done very fairly this year; power-loom cloth was in good request, and the new system was giving satisfaction. The Continental trade was not so good, but the United States market was regarded as satisfactory. The only drawback appeared to be the inordinately high figures ruling for the raw material.

The Royal Sociey, which had worked so energetically in behalf of the trade since 1841, was this year dissolved. During the period of its existence considerable improvement had been effected regarding the culture and after treatment of the flax plant, and the blank which this society left appears to have been greatly felt. The president—the Marquis of Downshire—gave it much support, and ably co-operated in advancing the interest of the trade over which it watched. Mr. M'Adam, the secretary, was also most efficient, and we believe that the difficulty of finding a successor equal to him when he resigned was the main cause which led to the breaking up of this very useful body.

Mr. Charley mentions in his work* that “the society might have gone on for years, and might have undergone such useful reforms in the constitution and management as the progress of the age required; but the sudden retirement of the active and intelligent secretary brought on a crisis, and a collapse of the whole affair followed.”

With the dissolution of the Society we conclude this chapter, noting the names connected with the Board during the last year of office:—

Patrons—Her Majesty the Queen; H. R. H. Prince Albert. *Vice-Patron*—The Lord Lieutenant of Ireland. *President*—The Marquis of Downshire. *Vice-Presidents*—Marquises—Waterford and Hertford; Earls—Erne, Ranfurly, and Bandon; Viscounts—Masserene and Dunganon; Lords—Rossmore, Lurgan, Monteagle, and Bishop of Down. Sir Robert Kane, Sir J. M. Stronge, Bart.; Sir Robert Bateson, Bart.; Sir William Verner, Bart., M.P.; W. S. Crawford, D.L.; Very Rev. Dean of Ross; Lt.-Col. A. Shafto Adair; H. M'C. Cairns, M.P. *Committee*—H. Anderson; W. G. Anderson; John Birney; Rev. F. Blakeley; John Borthwick; James Campbell; John Charters; G. J. Clarke; John S. Crawford; William Dargan; William Ewart, jun.; F. Filgate; R. F. Gordon; George Greer; John Hancock; John Herdman; James Hind; Victor C. Kennedy; S. K. Mulholland; J. M. Carten; Thomas M'Clure; John Preston; J. T. Reilly; J. J. Richardson, Esqrs.

* *Flax and its Products in Ireland*, by William Charley, J.P., Seymour Hill.

CHAPTER VII.

From the formation of the Indian Flax Company in 1859
down to the close of the past year.

IN the preceding chapter we noticed the dissolution of the Royal Society for promoting and improving the growth of flax in Ireland, and the same year that witnessed the extinction of this association gave rise to another, but with a different object in view, though in the main to increase, for home consumption, the supply of the raw material.

1859.—Attention having been drawn to the suitability of the soil of the Upper Punjab, East India, for growing flax, and owing to representations made to the trade by Sir John Lawrence, Governor of the Punjab, and Mr. D. M'Leod, Financial Commissioner at Lahore, a public meeting was convened on 13th Dec., 1859, in the Council Room of the Chamber of Commerce, Belfast, when the question was fully discussed, and the following resolution adopted :—"Resolved—That this meeting is of opinion that the very unsatisfactory state of the linen trade arises chiefly from a deficiency of the raw material, and that an abundant supply at a lower average cost would tend materially to the prosperity of the trade, this meeting therefore recommends the promotion of a company, with limited liability, and a capital of £50,000, in £10 shares, for the purpose of obtaining a supply of flax, and other fibres, from India."

A company was accordingly formed for the purpose, and considerable efforts were put forth to carry on the scheme, but which, as we shall afterwards learn, did not turn out a success.

1860.—General business, in the several departments of trade during this year, was on the whole fairly satisfactory, and a gradual

tendency towards improvement was observable. The old complaint about the short sowing of flax was renewed, as the falling off amounted to nearly 8,000 acres. The yield to farmers was, however, good, but the fibre came out unfavourably from the hackle, causing great disappointment to spinners; the cleaning was also defective, and at the close of the year, taking quality into account, prices were very high. Yarns, 75's to 100's, ordinary wefts, opened at 3s 9d per bundle, and during the year crept up in price, closing firm at 4s 3d, showing an advance of 6d per bundle in the 12 months. Linens were in good request from commencement of the year up to middle of December. Linen handkerchiefs being particularly active, and damasks were also in brisk demand, and became considerably enhanced in value. Power-looms were increasing, and all of them were well employed.

In December the Board of Trade published details respecting the reduction in duties, so far as affected the linen trade, and which had been the result of a commercial treaty entered into between France and the United Kingdom. The important concessions established by this treaty were rightly regarded as likely to be of great advantage to the Irish linen trade. The reduction in duty on yarns was about 65 per cent., and the duties on linen goods were also largely cut down.

1861.—In connection with the Indian Flax Company's scheme it may be interesting to insert some extracts from letters received at this period from the seat of operations, detailing progress made, and which were published in the *Circular*.

"SEALKOTE, 15th April, 1861.—I commenced to harvest flax on 1st inst., and have had the four bullocks on the road ever since. I start them at 3 o'clock in the morning, and they are in before the day becomes very hot. It is very warm now; 130 degrees in the sun at 11 o'clock, and 95 in the shade, so that there is no European goes out after 8 o'clock, or before 5 in the evening. I have mounted several ripples, and the farmers prefer taking off the seed themselves, which, when they clean, I will buy from them. . . . There has been a great failure in the produce of native seed this year. As the season was dry it came to perfection too soon. I am afraid one half will not come up to two feet long. The produce of foreign seed is all we could wish it to be; three and a half feet long is the minimum, and some have even attained four and a half feet. I see part of the late sown flax has failed. It should be all sown before the 20th October, in order to be ripe before the warm weather sets in." Under date 29th April, same writer states—"Where the flax and seed are good I generally give the farmers a small 'baksish,' or present, and they are better pleased with this than with the whole price of their flax. The heat is very oppressive on oxen, and if caught out in the middle of the day they lie down and will not rise. The temperature has suddenly risen, and is much warmer than it has been for many years at this season. It is now 12 o'clock, 136 degrees in the sun; 115 in the shade, and 98 inside the house, with all the appliances to keep the air cool. All the residents who can get away are off to the hills. The public offices are now open from 6 a.m. till 11, when they shut for the day. This will continue until the coming of the rains in July."

In a review of the trade we find that there had been an interruption of accustomed mercantile operations with America, consequent on the political complications by which that country had been distracted. The average export trade in linen shipped from the United Kingdom to the United States showed that during five years ending December 31, 1860, over 41 per cent. was taken by America, whilst this year the percentage had fallen to 18—a very serious drop, and, in consequence operated most unfavourably on the trade at this side, so much so that Ballymena linen declined 25 per cent. in price, and Lurgan damasks even more. Superior goods and heavy makes, suitable for home and continental markets, held pretty steadily all through, the decline being most marked in cloth suitable for shipment to America.

Owing to this falling-off in the export cloth trade, yarns declined from 4s 3d for 75s to 100s (at which they stood at beginning of year) to 3s 9d at close. Though flax showed a larger acreage this year, the yield did not exceed that of 1860. Very much of it was of inferior quality, and produce after hackling was below an average. The year was therefore very much against spinners, and several times short running seemed all but inevitable; however this was not resorted to.

1862.—Another International Exhibition was held in London this year, and in the list of awards made, by the jury, we find the names of several firms connected with our trade who obtained medals and honourable mention.

The Belfast Indian Flax Company obtained a medal for various samples of flax grown in the Punjab. The following firms were also awarded medals:—Messrs. Wm. Barbour & Sons, Lisburn, sewing and other threads—for general excellence. R. Bell & Co.; Whitehouse and Belfast, damask goods—for fine assortment and good manufacture. Brown & Liddell, Lurgan and Belfast (now John Brown & Sons, and Wm. Liddell & Co.), diapers, and finish of linen—for general excellence. Clibborn, Hill & Co., Banbridge, bird's-eye diaper, bleached—for fine assortment and variety. Foster Connor, Belfast, printed drills—for general excellence. Dunbar, Dicksons & Co., linen shirtings, cambrics, &c.—for great excellence. Dunbar, M'Master & Co., linen yarns and threads—for great general excellence. Fenton, Son & Co. (now Fenton, Connor & Co.), plain linen—for general excellence. John Hind & Sons, brown and bleached linens and cambric yarns—for excellence in fine yarns. Johnston & Carlisle (now Brookfield Linen Co. Limited), yarns and bleached linens—for general excellence. H. Matier & Co., linen and handkerchiefs—a good variety, especially in fine handkerchiefs. J. N. Richardson, Sons & Owden, linens—for excellence in bleaching and finishing. Honourable mention—Belfast Local Committee. Flaxseed fibre, yarn, and linen. For very complete examples from flaxseed to finished fabrics. Jaffe Bros—Linens and linen cambric handkerchiefs. Moore & Weinberg—for great variety and nice imitation of foulards. Preston, Smyth & Co., flax, yarn, linen, and cambrics—for great variety and perfect finish.

The Jurors were G. Mevissen (chairman), Zollverein; Erskine Beveridge (deputy-chairman), Dunfermline; M. Alcan, France; Marquis Luigi Cusani, Italy; William Charley, Belfast; Ch. de Brouckere, Belgium; J. Moir, Dundee; C. Oberleithner, Austria; Hon. Frederick Smyth, United States.

Jurors were precluded from being competitors for prizes.

In an Indian paper, "The Scindian Kurrachee," the following report on the Indian Flax Company (Limited) appeared at this time:—

"KURRACHEE, 23RD JULY, 1862.—In October, 1860, the Company deputed to the Punjab their first agriculturist, Mr. J. Wightman, with a view to ascertain and report upon the capabilities of that country for the successful production of flax. On his arrival at Sealkote, this gentleman found a small quantity of acclimated seed—4 or 5 maunds—the only kind capable of producing fibre. This was sown, and the produce was 36 maunds seed, and 22 maunds fibre, which is now on its way home, with 350 bushels of native seed, and 28 maunds of native fibre, as the result of the experiments of the first season. In the month of October, the 36 maunds of seed were distributed to the zemindars of the Sealkote district, and during the present season Mr. Wightman purchased the produce at the average rate of one rupee for 3 maunds of flax straw, and 5 rupees per maund for seed. This has produced on an average a return of about 40 rupees per acre to such of the cultivators as took care and paid attention to the cultivation of it; and the farmers are now impressed with the conviction that the flax crop is far superior in comparison with the results of grain cultivation, and have evinced an anxiety to continue its cultivation on a large scale. To meet the deficiency of seed, the Company have forwarded from Belfast a supply of Russian seed, to the extent of 150 barrels, and to secure its reaching in good condition, the consignment has been sent by the P. and O. Company's steamers to Alexandria, thence to Egypt and Suez. Two consignments have already arrived at Kurrachee, and the third is expected to arrive by the next mail steamer at Bombay. Mr. Wightman was directed to proceed to Bombay to take charge, and see to its being transmitted safely to its destination at Sealkote. Two lots have been received by him, one lot is on its way up the Indus, the second is at Kurrachee, where it has to be dried before shipment, and the third consignment is expected to come to hand in a few days. . . . The Company are very sanguine of success in their operations, on receipt of this large accession to their stock of seed. The climate and the soil are also well adapted for the production of this very useful fibre. They have also had tanks made at Sealkote where they can steep any quantity of flax, and are now engaged in the erection of flax machinery, imported from M^r Adam & Co., Belfast, which, when completed, will be worked by oxen. It is of the most simple, and, at the same time, most effective description. The Punjab Government, we are happy to record, are giving every encouragement to the successful carrying out of the Company's interests, thus aiding in the development of the resources of that rich and fertile province."

In the Spring of 1862, owing to a great falling off in supplies of raw cotton from the Southern States of America, and consequent enhancement in value of all products of that plant—caused by the difficulties which were gathering in that country, and which culminated in a civil war—flax goods of all classes were considerably stimulated, and the raw material steadily advanced in price from that period down to September. A reaction then

took place, but in November an upward movement again set in, and at close of the year prices stood at a high point. Yarns participated in the excitement, and fluctuations in price were of a violent and unprecedented character. 75's to 100's common wefts opened in January at 3s 9d, rose in February to 3s 10½d, at which point they kept pretty steady down to June. Early in July they advanced to 4s, in August to 4s 1½d, but after this a wild feeling took possession of the market, a rapid rise ensued, and these numbers rose to 6s as a minimum on 15th September, holding firm at this rate till the 6th October; afterwards a quieter feeling set in, and speculative buying having fallen off, quotations receded to 5s 3d on 3rd November, 4s 9d on 1st December, the year closing with an improvement on this price, when some spinners were asking 5s for 75's to 100's.

On the first indications of political disturbance in the United States, the utmost depression was felt throughout the linen trade, at the anticipated loss which would be sustained by reason of a falling off in demand from a market which consumed so large a proportion of our goods. But the disruption of their own domestic manufactures, and the stoppage of supplies of raw cotton soon disproved these gloomy anticipations, and instead of disaster overtaking our trade, the contrary effect was quickly experienced. Demand for linen goods of all kinds, but especially cloth suitable for clothing, and coarse goods became most active, and before the close of the year a considerable advance in prices had been established. Power-loom manufacturers were busily employed, 6,000 looms having been the estimated number running at this time. The flax crop did not yield well, although there had been an increase of about 2,000 acres compared with previous year.

1863.—The Indian Flax Company continued its operations, though the prospects of success seemed rather discouraging. We find in the Circular a communication from Mr. D. F. M'Leod, Financial Commissioner of the Punjab, Lahore, addressed to the Secretary of the Company, at Belfast, and dated Lahore, October 6, 1863. It mentions the arrival of Mr. John Montgomery, who had passed through Lahore on his way to the flax fields at Sealkote. The letter urged the Company to send out more men to assist Mr. Wightman "to be instructed in all that is peculiar to the work in India—to learn the language, and make the acquaintance of the people, and the best modes of dealing with them." The writer goes on to say—"It is now very apparent that in the present generation, at all events, the conduct of this matter cannot be safely entrusted to natives. The extent of operations that can be controlled effectively from one spot is, of

course, limited ; fresh centres of operation must be taken up from time to time, and each must be superintended by a European overseer, thoroughly instructed in all appertaining to the growth and manipulation of flax. To whatever extent, therefore, the Association desires to extend its operations efficiently, to supervise these, good European supervisors should be speedily sent out, and subjected to one or two year's training at the Sealkote headquarters." He next recommended that a good mechanist be sent out and, speaking of the difficulties which had to be contended with, stated—"It must be difficult, if not impossible, for those surrounded by all the appliances of European civilisation to estimate the amount of discouragement and difficulty which must be experienced by a man situated like Mr. Wightman, inaugurating a new experiment in a foreign land, amongst a people who have but very little in common with us ; in a climate not congenial to the European constitution, and with few or none of his own countrymen around him, moving in the same sphere with himself, from whom to meet sympathy or receive encouragement or support." As regards the seed, he mentions "that the ton of seed sent out by the Association this year had arrived in good order, but a ton sent out by Dr. F. Watson, for the Punjab Government, had again in a great measure failed. Now that a good beginning had been made, and a large quantity of acclimated seed had been raised, which would rapidly increase from year to year, the yearly shipment of a ton or two of good seed would doubtless be all that would be required to keep up the supply." The letter concluded by remarking that though the project was then but in its infancy, he thought the prospect of success was good.

The position of the linen trade this year was most gratifying and encouraging ; the improvement which had set in early in the previous one was not only fully maintained, but was followed up by most signal success. The disaster which overtook the cotton trade, and the widespread distress which arose in Lancashire among the operatives thrown out of employment there, and the losses entailed on millowners and others connected with that great industry, formed a strange and remarkable contrast with the extraordinary impetus which was imparted to all branches of the linen trade, as flax goods now largely filled the place of cotton manufactures, which, by reason of their greatly enhanced value, came less into competition with linen.

Encouraged by the favourable state of the market for 1862, farmers went more extensively into flax this year, and we accordingly find the area increased by upwards of 64,000 acres, and the largest crop, to this point, ever grown in Ireland. The yield

likewise showed great improvement, compared with that of preceding year, and the prices obtained were also high. Spinners had a good year of it, and though no additions were made to the spindles it was estimated that 650,000 were fully employed. The export trade in yarns from the United Kingdom for the twelve months had risen up to £2,530,404, against £1,852,451, in 1862, and £1,622,216, in 1861. Line wefts fell from 5s at opening of the year to 4s 3d in September, but rallied in October, and at close of year were back to 4s 9d to 5s. It was not, however, in this class of yarns that the greatest fluctuations were observable. The demand for power-loom goods and coarse fabrics being most active, we find that 30^s line weft, which were 7s to 7s 3d at beginning of the year, were quoted at 9s 6d at the close; 50^s which were 5s 3d to 5s 6d rose to 6s 6d to 6s 9d. On tow yarns a great advance took place, 25^s which sold in January from 7s 3d to 8s 3d rose to 10s 6d to 11s 6d at close of year. The review of the trade for this year, as given in the Circular, closed with this very jubilant paragraph:—"There are many circumstances in the history of the past year, the retrospect of which cannot but afford satisfaction. With an increased acreage under flax—with a healthful demand for yarns—with linens of almost all descriptions in active request; and with spinners, manufacturers, and merchants receiving a fair remuneration for the investment of capital and the exercise of intellect and labour, all interested have reason to regard with satisfaction and thankfulness the operations of the year."

The Indian Flax Co. received a communication from their agriculturist at Sealkote, dated 18th December, 1863, in which he reported that they had held their annual meeting on the 12th of that month, and by way of encouragement to the native farmers prizes had been distributed. "There was a large assemblage of farmers present, but not as many as on the last occasion. . . . The number of premiums was 47, divided into four classes. . . . The first premium was a cart and yoke of oxen; 2nd, a milch cow and calf; 3rd, ditto; 4th, a cashmere shawl; 5th, a silk ditto, &c., &c. . . . The value of the premiums—which were presented by Sir Robert Montgomery—came to about £120." The agriculturist adds, "I have been out in the country much during the last fortnight, and find the flax in a very promising state. It is both thick and healthy, without one exception, much better than any we have had heretofore."

1864.—In May of this year the Linen Trade Committee published in the Circular an abstract of returns which they received from proprietors of mills and factories in Ireland, as to the number of spindles and looms engaged in the trade. Comparing the figures as they stood in 1859, we find the following result:—

	Mills	Spindles employed	Spindles unemployed	Total	Proposed extension
1859	82	560,642	91,230	651,872	—
1864	74	641,914	8,860	650,774	50,638

In addition to the preceding there are—

Employed in twisting thread, ... 14,648 spindles
5 mills in course of erection, capable of containing, 45,000 „

Power-loom factories—

	Factories	Looms employed	Unemployed	Total	Proposed extension
1859	28	3,124	509	3,633	—
1861	35	4,609	324	4,933	—
1864	42	7,929	258	8,187	6185,

At the Industrial Exhibition held in Dublin this year, about eighteen Irish firms were contributors of specimens of flax goods. In a report supplied by the *Freeman's Journal* at the time, we find the following notice of the exhibits of some of our manufacturers :--

“ The charmingly finished cases, in which the several specimens are contained, are in themselves worthy of much praise; but it is with their contents we have to deal. Messrs. Dunbar, M'Master & Co. treat us to samples of flax, linen, yarn, and thread. . . . Dunbar, Dicksons & Co. (now Dicksons, Ferguson & Co. and William Spotten & Co.), samples of brown linen, bleached linen, cambric and linen handkerchiefs; printed lawns, damasks, drills, ducks, sheetings, etc. In this collection we have the manufacture of linen in all its shapes, from the coarse brown up to that worn by Royalty itself. . . . Next, a case exhibited by J. & W. Charley & Co., who show several pieces of medium and heavy linens, from 31 to 36 inches wide; also, lawns and cambrics, etc. In the competitive examination in this great branch of industry, where all competing specimens are so excellent, it would be hard to make an award. . . . Next, we find a splendid and similar collection of goods exhibited by J. N. Richardson, Sons, & Owden. We have here goods made for the home, English, Scotch, American, and Continental markets. We have also cambrics, damasks, and printed linens of many patterns. . . . Jaffe, Bros., of Belfast, and Bauford Bleach Works, come out very strong in white and printed linens, cambrics, etc., all of excellent manufacture. . . . We now stop before a most attractive upright case, Johnston & Carlisle (now Brookfield Linen Co., Limited), in which specimens of finest linens are made up in admirable style. Also, samples of flax in all stages, etc. . . . William Barbour & Sons exhibit specimens of linen threads, of all shades and colours. Preston, Smyth & Co. exhibit linen of various qualities, of excellent manufacture. J. Hind & Sons, samples of flax and yarns, brown, dyed, and bleached linens, lawns and cambric handkerchiefs. W. Sprott & Co., linens and woven shirt fronts. Malcomson, Bros., sundry samples of linen and cotton goods. Gradwell, Chadwick & Co., H. Hull & Co., and several other Drogheda firms, are likewise noted as exhibitors of yarns and linen goods.

The joint stock limited liability principle having gained in popular favour since its recognition by the Act of 1862, we find that the very satisfactory and progressive improvement in the linen trade induced many to apply this principle towards the

formation of local companies in connection with the trade. Accordingly, in July of this year, the York Street Flax Spinning Co. was started, "for the purpose of acquiring a property (according to the prospectus) consisting of the largest flax mill and linen factory in the North of Ireland, covering about four acres of land, in the town of Belfast, and consisting of a mill, weaving factory, stores, lapping rooms, and furniture, suitable for conducting the mercantile department of the business, to which was attached a valuable and extensive connection of 35 years' standing." The large concern of the Messrs. Mulholland was accordingly converted into a limited company, and the prosperity which marked its progress under its founders has continued down to the present day.

The general position of trade throughout this year was most satisfactory, and if it had not been that owing to the financial crisis in London, which caused the rate of discount to advance to 9 per cent., the profits would have been much larger. To begin with the raw material, farmers being in such good heart by the result of previous years' crop, they required no further stimulus to convince them that they best served their own interests by extending the acreage this year, and we accordingly find that the total breadth sown reached the highest ever known, viz., 301,693, being 87,594 acres of an increase compared with 1863. The season was, however, not favourable for steeping or scutching, so that the increased value of the crop this year did not correspond with the increased area, and a great deal brought to market was of indifferent quality, and badly handled. Prices opened pretty high in August, but dropped later in the season, rallying again at close of year.

The spinning department continued in a very healthy condition all this year, and most spinners held orders so far ahead as to take off all production to the close of year. In August tow yarns had reached the highest point ever known, 25's being quoted 10s 4½d to 11s 3d; and 35's, 9s 6d to 10s; 25's line weft, 11s to 11s 6d; 35's, 10s; 50's, 8s 6d; 75's, 6s 9d to 6s 10½d; 100's, 5s 7½d to 5s 9d; 120's, 5s 3d to 5s 6d. These extreme rates checked demand, and a reaction took place, the year closing with 25's tow, 8s 10½d to 10s; 25's line wefts, 9s 6d to 9s 9d; 75's, 5s 7½d to 5s 9d; and a range from 110's to 170's were 5s as a minimum.

The export trade in yarns from the United Kingdom reached the highest point ever recorded, being in value £3,010,109, against £2,530,404 in 1863.

Power-loom manufacturing kept steady pace with the spinning trade, but hand-loom fabrics did not partake of the general

prosperity, and production this year had very much fallen off. But the comparative smallness in demand for fine goods was quite lost sight of in the active trade which kept all the power-loom so well occupied. The trade of the United Kingdom in linen goods shows a surprising increase this year, the value exported being £8,158,545, against £6,508,973 in 1863. The United States taking value amounting to £2,481,199, against £2,076,761 the previous year.

1865.—The prosperity which marked the course of our staple trade during the past year was followed up by increased activity this year, and although peace was restored in the United States, it had no immediate effect in checking business, but rather the contrary, the fall demand for linen fabrics being so very large that prices rose up to an extreme point, and supplies fell short of requirements. Trade in linen goods with the United States for the twelve months increased from £2,481,199 in 1864 to £3,635,362 this year.

The area of flax showed a considerable falling off, as compared with 1864. Farmers were probably disappointed in the return of the previous year's crop, and that the results had fallen short of what they had anticipated, looking to the great prosperity of the linen trade. As prices generally obtained were so low, it was therefore not surprising to find that they reduced the quantity this year about 50,000 acres, seeing that quotations stood at from 3s 6d to 10s 3d per stone in the Spring. The partial failure, however, of the Continental flax crop this year gave a great start to our home produce, so much so, that by the close of the year prices ran up to from 7s 6d to 19s 3d per stone. Yarns opened in January at 5s for 110's to 170's, and 25's tow at 8s 10½d, but gradually receded in price down to May, when a range of wefts from 55's to 160 were quoted 4s 7½d, and 25's tow, 5s 9d. Reports coming from France, Holland, and Belgium, that dry weather and the fly were doing much injury to the growing flax, prices of the raw material took a great start, and from May to July Dutch flax rose £14 to £16 per ton, and our own markets also followed the same course down to November, when prices reached their maximum, being further stimulated by the reported short supplies of Russian produce. Yarns had now advanced to 7s for a range of wefts from 115's to 170's, and 25's tow yarns to 8s 4½d. A reaction set in about the middle of November, and at close of year they were slightly lower.

Another Exhibition was held in Dublin this year, and from newspaper files we find several reports, of which the following is a condensed summary :—

The Belfast linen firms have done the Exhibition in some cases the service of sending flax dressed and undressed, in the raw state and in its different processes, which much increases the interest and educational value of the department. Among the principal exhibitors Messrs. Jaffe, Brothers, Belfast, illustrate the universality of the operations of trade, in these days of rapid communication with distant countries, by showing turbans manufactured in the capital of Ulster for the Moslems of Africa and Asia.

No person who was unacquainted with the subject could fail to be struck with inscriptions in different languages, which attest the growing extent of the linen trade. Under a name which fairly describes its true importance, "*La perla de Irlanda*" finds its way to Brazil, and rough drills obtain entrance into the beleaguered Confederate States to clothe the negro labourers. The variety of the fabrics made from flax is really surprising. In the stand of Messrs. Dunbar, Dicksons, & Co. (now Dicksons, Ferguson, & Co., and William Spotten & Co.), of Belfast, are samples of flax, dressed and undressed, of linen yarn and thread, of strong brown and bleached linens, of handkerchiefs which exhibit remarkable finish and design, and of splendid diapers of the fern leaf pattern.

Equally fine, but in some respects different, is the collection contained in the case of Messrs. J. & W. Charley & Co., also of Belfast. Here is illustrated the possibility of imitating cotton fabrics in linen. Several splendid diapers show the number of patterns which can be suitably applied by the designer, and two fine pieces of lawn may be safely compared with the softest and whitest cambric.

The great firm of Richardson, Sons, & Owden have a large stand tastefully furnished with shirting and fronting linen, bird-eye diapers, and splendid brown damasks. Notable in this collection are the fine stitched and woven fronts. At first sight it could scarcely be credited that the latter were produced in the loom, so closely do they imitate the best needlework. The decorations and quality of the damasks are particularly fine, and even in the small articles, doyleys, an amount of taste and ingenuity is displayed exceedingly creditable to the firm. The stand of Messrs. Jaffe, Brothers, of Banford Bleach Works, County Down, is no less attractive. The history of this firm is a remarkable instance of enterprise and perseverance. Its founder gradually made his way to the establishment of factories in Belgium and Hanover, and when well established in trade, changed his headquarters to Belfast, and placed his extensive works in Banford. The white handkerchiefs in the case, alternated with printed handkerchiefs, exhibit the utmost fertility of design and cultivation of taste. Messrs. Johnston & Carlisle (now Brookfield Linen Co., Limited) take a still wider ground. Specimens of flax in the straw, scutched and hackled, occupy one corner. Yarns of flax and tow puzzle the uninitiated to tell which is produced from good material and which from the refuse.

Messrs. Fenton, Son, & Co. (now Fenton, Connor, & Co.) exhibit flax in the raw state, and in the different processes—yarns, damask tablecloths, and Indian scarfs of beautiful and showy patterns. Messrs. Moore & Weinberg, of the same town, exhibit linen yarns and damask table-linens. There are only two representatives of the Drogheda trade in the Exhibition. This trade is quite distinct from that of Belfast, and competes principally against Scotch linens.

Mr. Henry Hull has a pre-eminence in the class of goods which come under the head of sheetings, and several fine pieces of diaper will bear comparison with any exhibited elsewhere.

In the Belfast damasks, there are very few objectionable patterns, no excessive ornamentation, no obtrusive attempts to fix attention. On the contrary, there is evidence that "art" in this branch has reached its highest

point. Where there are flowers they are disposed in the best taste, without crowding or unsuitable grouping. Some of these designs, it is well known, are very costly, and cannot be produced by ordinary men.

1866.—In January of this year the Linen Trade Committee again collected statistical information respecting the spinning and weaving branches of trade, and the following abstract shows the progress made in two years :—

	Mills	Spindles Employed	Spindles Unemployed	Total	Proposed Extension
1864	74	641,914	8,860	650,774	50,638
1866	86	759,452	11,362	770,814	103,792
In addition to the preceding, there were employed in twisting thread—				17,786	4,656
In course of erection, mills capable of containing—				—	62,000
	Factories	Looms Employed	Looms Unemployed	Total	Proposed Extension
1864	42	7,929	253	8,187	1,685
1866	44	10,538	266	10,804	6,484
In course of erection, factories capable of containing					1,400

In the Linen Trade Circular of 12th November, we find an interesting communication from Dr. W. Neilson Hancock on the suitability of the south and west of Ireland for growing flax. As the letter touches upon some important points in reference to flax culture, we reproduce the communication in its entirety.

“Dublin, Nov. 9, 1866.

“To the Secretary, Linen Trade Committee, Belfast—

“DEAR SIR,—In reply to your inquiries as to my latest impressions regarding the effect of climate on the growth of flax, the impression left on my mind by the whole history of Government encouragement to the growth of flax since 1846, and of the earlier encouragement to the linen trade, for about a century before 1825, is that the greater part of the south, and part of the west of Ireland are too warm for the profitable growth of flax, as a Summer crop, in competition with other produce.

“As far as my information extends, the line of profitable Summer growth of flax cuts Ireland in two, crosses England, and takes in part of the north of France, then runs up through Germany to Russia.

“Nearly all the flax imported to England comes from north of this line, and our great countries for flaxseed are Russia and Holland. The only place south of this line from which England appears to import any considerable quantity of flax is Egypt. But in Egypt there are two crops in the year, and flax is a winter crop. The same happens in India. In the plains of Hindostan, flax is a winter crop, as is also the case (as you stated to me) in the warm and low-lying plains of the Punjab.

“The growth of flax in Egypt as a winter crop is as old as the time of Moses, for in the Bible narrative (Exodus chap. ix.) of the plagues of Egypt, it is incidentally mentioned that the flax and the barley were destroyed by the hail, whilst the wheat and the rye escaped, and the reason is stated that ‘the flax was balled’ (*i.e.*, swollen, or the seed vessels formed), ‘and the barley was

in the ear,' but the wheat and rye were not grown up. The explanation of this being that the flax and barley were then, as now, winter crops in Egypt, and wheat and rye summer crops.

"This affords a suggestion which I have made for Algeria, and which may be applicable to India, to try flax at whatever season or place barley succeeds best, and to avoid the season or place where wheat or rye is most successful.

"I annex an extract from my official report on the statistics of flax culture in Connaught and Munster in 1865, in which the climate for flax is considered.

"The statistics for 1866, as far as I have examined them, are not so encouraging, as those for 1865, with respect to the attempt to grow flax out of Ulster.—Yours very truly, W. NEILSON HANCOCK."

Extract from Dr. Hancock's official report, as referred to in his letter.

The effect of climate in determining the district for flax :—

"The very marked difference as to the growth of flax between some countries and others, and between baronies in the same county, suggested an inquiry whether there was any general principle by which the difference might be accounted for.

"There is a very considerable local difference in the climate of Ireland, arising from the direction of the mountain ranges, with reference to the warm winds from the South and West, and the cold winds from the North and East. Lands lying to the North and East of mountains and hills, and valleys sloping towards the North and East are colder than the Southern and Western faces of mountain ranges, and of hills sloping towards the South and West.

"There are many indications that flax requires a colder climate than wheat. In Egypt, from which we import both flax and wheat, there are two crops in the year, a Winter and a Summer crop, and in Egypt flax is a Winter crop and Wheat a Summer one.

"Again, we import our flaxseed from Riga, in Russia, and from Holland. We get little wheat from Holland and the Northern parts of Russia; we get it from the United States of America, the Southern parts of Russia, from the countries adjoining the Black Sea, from France, Egypt, and Turkey.

"In Ireland, again, the counties remarkable for wheat are those where the least flax is grown, and *vice versa*. Thus the greatest wheat cultivation is in Kilkenny, where there are 30,823 acres of wheat and only 255 acres of flax. In Tyrone, on the other hand, where there are 36,685 acres of flax, there are only 1,420 acres of wheat.

"In consequence of the active competition between Ireland and warmer countries in the production of wheat, the extent of land under crop still existing may be taken as a measure of the climate of the different districts, and accordingly the county in Munster where the acreage under flax is least is that where the acreage under wheat is greatest."

The state of trade this year was also satisfactory, and the export demand for linen goods was not only lively, but returns showed an improvement compared with 1865. The home demand for the same period, although not of a very active character, was steady, and values were fully maintained.

The prices obtained for flax in 1865, which were £10 to £12 per ton higher than what farmers got in 1866, had the effect of checking any considerably extended acreage, though we find an increase amounting to about 5 per cent. ; the yield was, however, less, and quality inferior to that of 1865. The Continental flax crops were much better than previous year, and prices of foreign as well as home produce fell this season.

Yarns were in good request at opening of the year, a range of wefts from 120's to 170's being 8s 3d to 9s, and 25's tow weft, 8s 4½d a bundle. Prices began to droop in March, and continued to fall until July, when wefts were quoted from 4½d to 1s lower. A recovery afterwards set in ; but again in November and part of December a considerable amount of dulness existed, with a tendency to lower prices, but as the year drew to a close improvement in demand became manifest, and considerable animation prevailed, with a marked upward tendency in prices. The Bank rate was very high during the greater part of the year, having reached 10 per cent. in June, at which point it remained till August. The export trade in yarns showed a further falling off, principally on French and German account.

The turn-out of cloth from the power-looms had further increased this year, and demand appeared to have been brisk for three-fourths of the year, the American trade being reported as singularly good down to September ; some manufacturers of cloth suitable for this market having forward orders from 3 to 6 months. But the trade received a check when it became known that the United States Government contemplated an advance in the duties. The Continental trade, except on French account, was not so good this year, the falling-off being attributed to the war. Stocks throughout the year were, in general, very moderate ; prices opened high at commencement, became easier during the year, but at the close were pretty firm.

In the Report of Mr. Baker, Inspector of Factories, we find some useful remarks on the culture of flax ; and also respecting the popular ideas of farmers, especially those of the South and West, as to the growth and treatment of the plant. As much of what was then stated is equally applicable now, we insert the section which deals with the subject.

The increase of spindles and looms in Ireland for Flax spinning and weaving, and the supply of raw material for them, are questions of the deepest interest. Whether under the circumstances which loom at present about the growth of cotton, or whether with reference to the efforts which Ireland has made and is making to bring linen into successful competition with the cotton manufacture, there can be no doubt that much of the anxiously desired success of the Irish linen trade depends upon the readiest method of obtaining raw

material cheaply, and yet not so cheaply as to deter the indigenous growth for want of a remunerative profit. The Irish agricultural mind is one *sui generis*, and seems at present to be in a very peculiar state on the cultivation of Flax, especially in the south. The large acreage sown over the whole country in 1864, the diminished growth of 1865, and the increase again in 1866, perplexes it very much. It is not certain whether to treat the introduction of this fibre into so many new districts, and the growth of patches so much larger than formerly in the old ones, as an innovation, or a fact which it ought to act upon. The farmer clings to the old method of cropping his land, as if it were the only possible one to pursue, and as if the profits of certain Flax crops, of which he hears by chance, belong to a newer and better mode of culture, or are dreams only, and not realities. If he yields to the impulse to try a small patch and accidentally grows it very superiorly, and sells it for what appears to him fabulous prices in comparison with his former attempts, he will perhaps try it again the second year, leave it almost to cultivate itself when once the seed is in, and then, when it is gathered, asks the same fabulous price for a worse quality of product, and wonders why he does not get it? In this state of bewilderment he doubts and mistrusts and relapses. He is playing a game, and cannot understand the moves. He is ever calculating, as he sells his crop, wherein lies the advantage to the buyer, and what will turn up next? If he is treated fairly by the purchaser in order to encourage him in the cultivation of this valuable fibre, and is given the full value for his crop, which in his ignorance he has not ventured to ask, he just accepts it and says, "did you ever see the like of that?" but is not thereby induced to apply his mind to the reason why he has been so favoured. And perhaps it will be years before he will attain to a knowledge of the effect of climatic influences, of the exhaustion of the soil by weeds, and of the repairing help it wants to enable it to respond to the expectations which he has formed of its capabilities. It seems to be with respect to agriculture as to most other things (of course there are exceptions in all) that, whatever is done, is a makeshift. If it prospers, it is luck; if it fails, it is providential. A farmer in the neighbourhood of Drogheda last year sowed a field of two acres, by way of experiment, one with oats and one with Flax. There was the same soil and cultivation for both crops. He sold the Flax for £17 10s. and the oats for £5, and even was then hard to convince of the value of Flax as a remunerative crop. Such examples are constantly occurring. If the soil and climate were less adapted to grow Flax than they are, if labour was not generally cheap and ready, except in the time of Flax harvest, and if Flax was a product for export and not for home consumption, one could understand why so much persuasion was necessary to effect a radical change in the farmer's inclination. But with the actual profitable results in hand, and oftentimes a successional crop within the same year, his obtuseness is remarkable.

It is true that, occasionally, Flax is taken to market and returns unsold; and that this is disappointing to the farmer's expectations. Whereupon he writes a letter to the nearest newspaper, to complain of the treatment he has received, and to threaten a discontinuation of the growth next year, not only of his own crop, but of that of the whole country. He forgets that markets fluctuate, and that spinning companies have other engagements to meet than those of Flax buying, and that there are many causes arising to them which interfere with his present want of success, but are unavoidable.

It is, however, not only in the growth of Flax, but in the subsequent manipulation of it, that the cause of failing markets is to be sought for. I was shown in Belfast a strick of Flax grown in England, and manipulated there, placed side by side with one of the same quality of Flax grown and scutched in Ireland, and the difference between them accounted at once for the disappointment in prices which the Irish farmers have from time to time sustained. The

fibres of the English Flax were clean, and long, and parallel, and of a capital colour ; whilst those manipulated in Ireland were matted, full of shove, and requiring considerable additional labour and expense by the manufacturer, to bring it to a marketable equality with the English sample. It was then I could at length comprehend why a large spinner in the south of Ireland, with every desire to spin Irish Flax instead of Courtrai, and who regularly visits the Belfast Flax market to make purchases suitable to his purpose if he can, declared it impossible to procure Irish Flax sufficiently clean for his machinery. On pursuing the inquiry further with a most intelligent scutcher whom I met when near Belfast, and who had followed his avocation in several European countries, I learnt that, no process of reasoning can as yet induce the Irish farmer to comprehend that, sixpence extra spent upon dressing the Flax carefully, though it might lose him sixpence in weight, would bring him half-a-crown a stone extra in the value of his raw material when exposed for sale.

But this is not all. One of the most important elements in Flax growing, if not the most important, after due attention to soil and climate, is the selection of the seed ; but the practices prevalent with regard to the seed appear to be, not only most disreputable, but prejudicial to the character of the product itself. In fact, it seems in vain to talk of soils, manures, croppings, rettings, and scutchings if, in the first instance, the seed is comparatively valueless. And yet, great pains have been taken with the Irish farmer in the distribution of information of every kind, plain, simple, and instructive, on all the points material to a successful cultivation of good Flax ; and, amongst other things, to the preliminary and paramount necessity of good, sound, and thoroughly sifted seed. There are crops of such seed under well known brands I am informed, which are considered a guarantee of quality in most markets in Ireland, and agents residing here and there who are responsible for it. But although the Irish farmer knows well enough how important it is to possess such seed, he will often buy his of some huxter, who plants himself down in the open market, at the very door, perhaps of one of these agents, with seed alike only to the other in colour, but sadly deficient in every other quality, for a penny or twopence less per measure, in preference. He thus buys discouragement for himself, and disappointment for his country. This is one source of failure which those that are interested in the growth of Flax in Ireland have to provide against.

1867.—Since the dissolution of the Royal Flax Society, in 1859, there was no public body to watch over this special department of our trade. The late Mr. M'Ilrath wrote a small pamphlet giving directions as to the growth and management of the flax crop, and the Linen Trade Committee had it freely distributed, and in various ways they assisted, as far as possible, in disseminating information of a useful nature. The North-East Agricultural Society endeavoured to promote and encourage the growth of flax, but their means of operation were too limited to have any important influence.

Mr. Wm. Charley drew attention in 1862 to the importance of forming a large central society to fill the gap which the Royal Society left. It was not, however, until this year that any steps were taken to supply the acknowledged want, when a public

meeting was convened, in the Chamber of Commerce, Belfast, on the 16th August, 1867 (the President of the Chamber, John Lytle, Esq., being chairman), and it was decided that the formation of such a society was absolutely necessary. The following resolutions, which were passed unanimously at the meeting, will fully explain the objects of the proposed association :—

“1st.—That the formation of an association in Belfast for the purpose of improving the quality of flax grown in Ulster, and extending the cultivation of the crop elsewhere, is calculated to be productive of much benefit, not only to the trade in general, but also to the agricultural community.”

“2nd.—That, for the promotion of the general aims of this association, it should co-operate as much as possible with landlords, agricultural societies, and all organisations which have taken, or may hereafter take, practical steps for the extension and improvement of flax culture.”

“3rd.—That as one of the chief obstacles to the growth of flax has hitherto been the difficulty of sale, in outlying districts, the association should take such steps as would enable the farmers in those districts to dispose of their crop to the best advantage.”

“4th.—That, in order to facilitate the preparation of the flax for sale, this association should afford such encouragement as might be in their power for the erection of scutching machinery in new districts.

“5th.—That, while encouraging the saving of home-grown seed (chiefly for feeding purposes), the association should afford, all possible assistance to landlords and farmers in procuring a supply of the best description of foreign seed, for sowing, on the most favourable terms.

“6th.—That a committee be formed for the purpose of framing rules and regulations for the association, and for further carrying out the objects in view.”

An International Exhibition was held in Paris this year, and a good many representatives of our trade put in an appearance.

A report, supplied by John Stevelly, Esq., of Paris, to the Linen Trade Committee, gives such very full information on the various branches of the linen trade, and the progress which Continental countries were making in respect to this manufacture, that we insert the greater portion which treats upon the subject.

PARIS INTERNATIONAL EXHIBITION, 1867.—FLAX MANUFACTURES.

We find in the Exhibition of this year the great number of 621 exhibitors in this class, without counting the Belfast trophy, which does not appear in the catalogue; and, although Scotland, England, and America are unrepresented, we have still a show of linens which would have been believed impossible in 1851 or 1855. This exhibition confirms what we already know by experience—that Great Britain, although doubtless the largest manufacturer of linen goods in the world, has been hitherto by no means a great consumer.

The cotton famine has now forced many to use linen who previously used cotton; and these, I hope we have secured as permanent customers for our linen manufactures. Such a crisis was not needed to induce the consumption of linens on the Continent, where a cotton blouse or a cotton shirt has long been a mark of exceptional poverty.

Commencing our circuit of the gallery on our left hand, we come to France, whose linen manufactures we shall first consider, not only because we are at present the guests of France, but also on account of their importance. Then follow Holland, Belgium, Prussia, and the Northern States of Germany and Austria; and, passing through several countries of minor importance as linen manufacturers, including our own colonies, we come to Ireland, almost at the point at which we started. I say Ireland advisedly, for the absence of Dundee, Dunfermline, Barnsley, and a host of other places celebrated for their linens, leaves a woeful want in the British class 28, as it appears in the Champ de Mars. The unrepresented members of our trade urge their expense, labour, and loss of time at former exhibitions, and the small appreciable advantages which they derived therefrom, as an unanswerable argument against their exhibiting. I believe this, however, to be a mistake. Even in an economical point of view, it is certainly the cheapest and most telling advertisement.

France has not underrated the importance of exhibiting a complete series of her linen manufactures, but, in common with Belgium and Prussia, she has devoted to it the largest space allotted to any one industry. Certainly the linens exhibited by France have nothing in common with our makes or consistent with our ideas of what she would find most profitable; we must, however, study these French manufactures as they are, and try to imitate them if we wish France to become to any extent our customer. . . . The Belgians, it is true, are aided by cheap labour; but we have, on the other hand, our immense development of power-looms. What we have neglected to acquire is the experience which the Belgians possess both in producing the goods demanded by the French trade and in adapting themselves to the fancy tariffs of the French Custom-house. In the present report I should wish to draw special attention to those particular classes of goods which appear to me the most important for our manufacturers to become acquainted with and which it would be most easy for them to make their own; so that, in case of a sudden suspension of purchases on the part of a large customer, such as America, or of the reduction or abolition of the present French tariff, they might be able to avail themselves in some measure of the outlet which France affords them.

Allow me to say a word on the subject of the French duties. The present French Government carried in 1860 a comparatively liberal measure in spite of a formidable opposition. A tariff on the principle of a 15 per cent. maximum rate was far from a radical measure; but at that time the intelligent Minister, now the Minister of State, held out the hope that, if the powerful band of manufacturers who opposed any change were neither ruined nor seriously affected by the modification of the tariff, the further reduction of the duty would be limited only by the fiscal wants of the country.

During the seven years of the new regime the spindles have increased from 400,000 to 700,000. The power-looms have taken a firm place in the country. The exports of linen yarn and thread have increased from a nominal quantity to 4,000,000lb., and the export of linen has reached the enormous amount of 9,000,000lb. The sudden general demand for linen might diminish the value of these facts, were it not that precisely the same results have followed in the cases of the cotton and the woollen trades. The French Government has partly recognised these results, first, in the treaty with Belgium, when certain duties were modified, especially on low plain goods and drills; and, secondly, in the beginning of this year, when 20 per cent. reduction was made on the finest class of linen, in the special Austrian treaty. Under these circumstances I believe that the time has arrived when it would be most important to urge on the French Government to abolish protective duties which the French manufacturers no longer require, or, at all events to place them at the lowest per centage which they believe the financial arrangements of the country

to justify. A 5 per cent. maximum rate would in all probability greatly increase the revenue. In making such a representation I would especially call attention to the case of heavy makes of coarse linens, and to drills, which are both virtually excluded, and also to the importance to the French manufacturers of having extended to them the beneficial effects of the article 40 in the Belgian law on entrepôts, which allows them to take out of bond, duty free, yarns destined for the manufacture of linens for export. This would allow the French manufacturers to compete on terms of equality with other nations in the markets of the world.

I hope the reporter of class 43, to whom this more properly belongs, will excuse my making a few remarks on the important subject of the "raw material." At the beginning of the present century, during the wars of the Empire, owing to the want of labour the growth of flax was small in France, each household only growing what it required for its own use. Little or none could be exported. In 1822 we find, however, some 35,000 acres under flax, but in 1845 the area falls to 11,000 acres in consequence of the slowness of the French in following the lead given by England and Ireland in adapting machinery to spinning flax. At this time our sales of yarns to France reached in one year the large amount for the period of 110,000 tons. It was now clear that hand-spinning was doomed, and, with the erection of mills, we find the culture of flax gradually increasing. In 1864, in the *Département du Nord* alone, there were 45,000 acres devoted to flax; and in 1866 we may safely assume that France had at least 60,000 acres under the same crop, besides importing 312,000 tons of flax, principally from Belgium and Russia, 74,000 tons of hemp, and 169,000 tons of jute. The exportations during the same period reach in the aggregate, exclusive of flax straw, 74,000 tons. Notwithstanding these figures, the supply of flax was so evidently inadequate that a few enterprising spinners and merchants of Lille formed, a few years ago, a company for the culture of flax in the colony of Algeria, where the plant was remarked to grow abundantly in a wild state. The success of this speculation is worthy of notice, for last year, three years after their modest commencement, they sold 1,000 tons of flax fibre. We find exhibited, not only by several spinners, but by the "*Compagnie de la Culture du Lin et Coton d'Algerie*," besides exceptional samples spun into yarns, numbering from 100 to 300, a good quantity of medium flax, suitable for spinning wefts, forty to seventy, of good colour, resembling in many respects those better marks of Russian flax, which of late years have become so scarce. They have great facilities for the weeding and pulling of flax in Algeria in the large native population, who do this kind of work well, cheaply, and quickly. The water for steeping is good, and the scutching-machines used are the best that can be had. As the crop is gathered in May, the produce can be early in the market. The seed also deserves notice; for the grain originally imported from Riga has so much improved after its third year in Algeria that, when tried with freshly imported Riga seed, it gives flax not only 10 inches longer, but with a finer fibre. Trials of this seed, under official surveillance, have been made both in France and Belgium with the like result. Messrs. Droulers et Agache give us examples of this flax spun. And they exhibit likewise an extensive range of well-spun yarns, extending from 10 to 300, shown so as to make the difference between the qualities of flax grown in different districts easily appreciable. Messrs. Le Blan Freres have also a very creditable collection of yarns. The principal honours of the French department, both as spinners and manufacturers, must, however, be reserved for Messrs. Wallaert Freres, who exhibit a collection of family linens and sheetings, all power-loom goods, which certainly show considerable progress, although closely followed by the large manufacturers of Arménieres, Messrs. Beglin Duflos, Victor Pouchain, and Mathieu-Delangre. Normandy was the cradle of these household Linens, under the name of

'Cretannes;' and these Norman combinations are more or less those copied at Lille. Foremost among the large houses of Normandy are the old house of Laniel, the first to employ Power-looms in France, and still ready to adopt every improvement; M. Fournet and Messrs. P. Marie et Cie., both of Lisieux, who have seen nearly all their smaller neighbours disappear in the unequal struggle between Hand and Power-looms. Even they, with their powerful organization, have to contend with the high rate of wages, or rather with the difficulty of finding skilled labour in a region so far removed from the present centre of the Linen trade. In these goods, whether they be from Lille or from Normandy, the base is the same. The lower sets are 42 in. wide, the finer 36 in., and a little is made 32 in. The Yarns are well boiled, and we get some idea of the qualities employed by examining the samples exhibited by Messrs. Mery, Samson, Ratray, et Cie., an establishment founded by Messrs. Duffin, of Belfast, and making Yarns specially for these goods in 25-40 line. . . .

Messrs. Jongley-Hovelacque, Carn Cardon, et Cie., and Messrs. Duhamel Frères, give us all the types of cloth used in the naval and military services, both of which, as well as the hospitals, prisons, and other public departments, unlike our own, have always employed linen in preference to cotton. These types have a special interest for our manufacturers at present, from the fact that, in the last adjudication of a linen contract, the French military authorities, contrary to their invariable rule since 1840, left out the clause in the conditions requiring the contractor to guarantee that the goods are bona fide of French manufacture. Of this return to a liberal spirit we cannot speak too highly, and we accept it as a good omen for the future.

Messrs. J. Scrive et Fils and a number of others show samples of blouse linens, blue, slate, and drab, in all variety of shades. These cloths are generally made 41 inches to 42 inches wide, although a small portion are in 55 inches; but for our purpose we can study such goods more profitably in Belgium, where the manufacturers, without neglecting the preference given in France to heavy linens, have at the same time kept the French tariff in view. The heavy linens made of dry spun yarn, although forming an important part of the French consumption, have less interest for us than the preceding descriptions; still we cannot pass over the exhibitions of Messrs. Dickson et Cie., and of the "Société Linière du Finistère," from their well-known position in the trade of France. Besides the goods they sell for shirts and sheets in the agricultural districts, they are the principal linen contractors for the navy; and their sailcloth competes with the best marks of Dundee in every market. Nothing could more thoroughly prove the absurdity of their being still "protected" by a 15 per cent. duty in France. . . .

We find eight exhibitors of fancy drills. Two districts appear to monopolise this trade—Roubaix, in the immediate neighbourhood of Lille; and Laval, in Mayenne. In both the arrangements of colour are tasteful, and the goods are well made and cheap. Fancy drills, either in the piece or in made-up articles of clothing, form a large item in the linen exports of France. Let me especially draw attention to Messrs. Parent et Danchin, who show very nice fancy drills, 24 in. wide, linen warp and jute weft, at $7\frac{1}{2}$ d to 11d, a new and very useful combination.

In the Cholet district the trade in light linens and in linen handkerchiefs gives employment to about 20,000 looms. There they make also checked Madras handkerchiefs, the colours dyed in the yarns. For these they have an outlet not only in France, but in the remoter districts of Wales, Germany, and Spain, where snuff-taking still lingers. This class of goods is, I believe, unknown to our manufacturers. Cambrai is also an important centre for the finer handkerchiefs, and for fine linens. The wages are higher than in the Cholet district, and the weavers are singularly intelligent. Eight manufacturers give a proof of this in a very varied exhibition. The three of those first

on the list, Messrs. Vinchon et Basquin, M. Bricont-Molet, and M. Bertrand Milcent, show a beautiful series of "batistees," which are made from hand-spun yarn, and to which the town of Cambrai has given its name, and also of ordinary fabrics.

The progress which has been made during the last ten years in the damask trade in France is most remarkable, and the dazzling show of French damasks in the Exhibition, and the number and importance of the exhibitors, show that damask goods are now fast taking their proper place with the consumers, and replacing the plain linens and low diapers which were formerly in almost universal use as table linen. The show of every-day damasks of Messrs. J. Casse et Fils is very creditable, without considering their two chef-d'œuvres, which it would require the more authorised pen of an art critic to discuss; as also are those of Messrs. Deneux Freres, Messrs. Danset Freres, who need fear no competitor in their ordinary sorts, and M. J. Joanard, of Paris, whose designs are very beautiful, and so varied that every taste may be satisfied except that of the admirer of geometrical patterns, of which I do not see a single example.

An honourable mention is due to Mr. Turquet, of Senlis, who has devoted himself to bleaching and finishing damask goods. Those in this Exhibition are nearly all bleached by him and do him great credit, although his name does not appear in the catalogue.

Algeria has nothing worthy of note. The few wretched examples of native manufacture are most uninteresting. I sought in vain for something analogous to the "Algerian stripes" made at one time largely in Belfast, of which the Arabs make the unique article of clothing worn in the tents during the hot weather. The interest in this country is more in its flax, to which I have already alluded. It is singular that, during the plague of locusts which devastated Algeria last year, while every other green thing was devoured, the flax plant was generously spared.

Holland being our customer for £250,000 worth of yarns yearly, I cannot speak evil of her linen manufactures; but, as I cannot praise them, I have no other course than to proceed to the next country on our circuit.

Belgium shows much in common with the Lille district. The separation of French Flanders is of comparatively recent date; and the foundation of the linen manufacture in this part of the Continent is attributed to certain barbarous tribes from the region of the Caspian Sea, who are said to have settled in this district some 300 years before the Christian era. Whether there may be truth in this legend or not, it is certain that Flanders linen can be traced back to a very early period. At the time of the first invasion of Gaul by the Romans these northern people wore the "sagum," or blouse, which is still the national dress. Belgium offers many advantages for the development of the linen trade. The climate is very suitable to the growth of flax, which is accordingly of excellent quality; the water for steeping it is well suited to the purpose, and abundant; and a great amount of care and skill is employed in its cultivation and preparation. The inhabitants are naturally industrious, and are well trained by centuries of traditions; and the Belgian flax has always been esteemed the best in the world. The quality has, however, of late years been below the average, from the desire of the farmers to produce the greatest possible quantity on a given surface, which could only be effected at the expense of the quality by the employment of guano and artificial manures, whose effect is no longer doubtful. The growth of flax has by no means increased in the same ratio as the prices. In 1840 we find the production estimated at 210,000 tons; while in 1864, with the prices trebled, the quantity grown is estimated at 250,000 tons. The larger proportion of the finer descriptions finds its way to Belfast and England, the middle sorts and the coarse flax are bought by the Lille spinners, or go to supply the 250,000

spindles which turn in Belgium itself. The total exportation of grey yarn is to an amount of about £600,000, and of bleached yarn and thread about £400,000, making in round numbers a total of about £1,000,000. Of this nearly half is sold to the neighbouring Prussian State, and the remainder is divided between Holland, France, and Switzerland. The exportation of linen from Belgium reached in 1864 the imposing amount of £1,600,000. France heads the list of customers by taking £440,000 worth; Holland buys nearly as much, while the wonderful little Island of Cuba absorbs £185,000. Prussia and Switzerland take £100,000 each; and, although the Hanse Towns figure for over £160,000, a large portion of that sum must, no doubt, be attributed to Russia, as she only received directly for £70. The remaining £175,000 are distributed over the globe. These results are really surprising in a country with a population of four millions and a half.

Amongst the most remarkable of the Belgian manufacturers is the well-known name of M. Rey Aine, of Brussels, who, after a long life devoted to this trade, finds himself, as he tells us, at the head of 750 power-looms, and nearly double the number of hand-looms, employing some 4,000 workers, and producing over 11,000,000 yards of linen annually, embracing nearly every class of goods. I propose drawing attention to the most remarkable varieties of Belgian linens only, and to those manufacturers who appear to me to succeed best in their specialities.

Amongst these I class shirtings as the most important; and the combined exhibition of Courtrai and Roulers gives us ample means of judging both of their merits and of their defects. Among the latter I would class an inferior bleach, and perhaps a somewhat smaller quantity of weft, than we are accustomed to, and an over-boiling of the yarn, which renders it soft, and gives it a tendency to form small lumps in the after processes. The yarns are, however, excellent, the cloth is well woven, and the prices are moderate, as may be judged by the quotations of more than one of the exhibitors.

In the sheetings exhibited, and in those of M. Dathes, and M. Denys, we have examples of goods used largely on the Continent, especially in Spain, Italy, and Germany, which are little made with us. They command a large sale, for they are of good material, and lighter and cheaper than goods of the same class of British make. Many houses exhibit blouse linen, of which the sale is very important; it will be sufficient to mention M. Tant-Verlinde and Messrs. Van Damme Freres, of Roulers, M. Parmentier, of Iseghem, and M. H. Van Brabander of the Belgian catalogue. The immense sale of these goods naturally draws our attention particularly to them, and, seeing them, a manufacturer will have little difficulty in imagining that Belfast, paying the same duties for their entrance into France, cannot sell a single piece, and, after many trials, has fairly given up the attempt as hopeless. The whole of the trade is thus left in the hands of Belgium, whose sales are estimated by millions yearly in this one article, the range being 10⁰⁰ to 18⁰⁰, and nine-tenths of the sales in the three middle numbers, 13, 14, and 15.

The cheap labour in Belgium is doubtless a difficult element to contend with; but sooner or later it must follow the general advance. Although the goods produced by our power-looms are now more costly, their price is diminishing day by day by new inventions and by the improving skill of the weavers; and they are at all times more regular. All these considerations should encourage us to emulation.

The Belgian drills, of which, however, we have but few examples in the Exhibition, are remarkably good value. We have an opportunity of judging of them in the samples of Messrs. Cornille-Bartholomeus, et Bartholomeus Freres, and one or two others.

The Belgian handkerchiefs are but poor; and the damasks, of which there are several exhibitors—the best, perhaps, Messrs. Noel Freres, of Alost, and

M. Brandt—but are indifferent in pattern, and detestable in bleach. . . . From France and Belgium we have much to learn; I have therefore thought myself justified in studying their productions somewhat in detail. . . .

Prussia and the northern States of Germany, however, still present important fields of manufacture, of which the nearest home is Bielefeld, whose linens are well known, not only in Germany and Russia, but also in France and Italy. The celebrity of this region for fine linens dates from the time of hand-spun yarns. Of this we have many proofs even in this Exhibition. Above 21⁰⁰ these linens are admirable; below that number I think their prices must shut them out from every market where an old and honourable connection does not weigh in their favour. Of these fine linens we can have no better example than those of the old house of F. G. Kreonig, whose existence dates from the year 1763; and of Bertelsmann and Son. The sale of this very fine linen is of course limited. Here they push it by turning it into shirt-fronts by the aid of sewing machines. Herr Westermann, and Herr Heidsieck give us some good examples of well-executed damask, which appears, however, to be an accidental article of manufacture in this country, entirely devoted to plain fine linen. Side by side with these fine goods and this old-fashioned trading, we find modern industry represented by several large flax-spinners and power-loom manufacturers such as the Bielefeld Company, the Ravensberg Company, the Vorworts Company, Herr Mevissen, and Herren Schoeller, Mevissen, and Buckler, of Duren, who average 20,000 spindles each, and many of them have large power-loom factories. These establishments, put up recently on our own models, only interest us as a pupil's success must always interest his teacher.

Passing north from Bielefeld we reach Osnabruck, where we find that the old-fashioned manufacture of that name is still a reality. The Hanoverian market officers, who measured and sealed only a part of their cloth last year, state that the value of the linen which passed through their hands amounted to £170,000. In this neighbourhood Herr Aschrott, of Cassell, is certainly the most remarkable manufacturer. He appears to make every kind of goods, from white shirtings to hessians, at 4d a yard, including dowlas, Russians, and many other familiar names. I particularly noticed a hessian made nine yards wide on a five yard-wide loom by the system of doubling, long since applied to silk.

Leaving Hanover, we come to the classic land of damasks, Saxony, which, however, leaves its reputation in the hands of but few exhibitors. Herr Joseph Meyer, of Dresden, besides his special piece, Rembrandt and his Wife, gives us many cloths excellent both in design and bleach; and Herr Proelss is a manufacturer above the average. The 2,000 looms of Herr Fraenkel, of Neustadt enable him, with his ordinary goods, to make, perhaps, the best show of damasks from the district; at all events, they justify his success as a manufacturer, for he commenced in 1855 with two looms, and gradually extended his trade to its present importance. The exhibition of the above-named Dresden houses is no doubt creditable; but I should have liked to have seen more numerous samples from Zittau and its neighbourhood, where damask manufacturers are plentiful, to have compared their goods with those of France, and thus to have been enabled to judge what portion of the old and widespread reputation of Saxon damasks is real, and how much is kept up through tradition. H. Waentig & Co., of Zittau, show an excellent collection of fancy drills, both linen and mixtures, for which they have a sale of 30,000 pieces yearly, and in plain power-loom goods Herren Kaemelo, Erben, & Co., of Gross Schoneau, make a very saleable article at 8d to 1s 6d a yard. Herr C. T. Matthes and Herr Neumann, of Eylau, have an excellent display of "listadoes," used like those we make ourselves, for negro clothing in the West Indies. In Germany they have given a much greater variety to these goods, and have thus secured a larger share in the trade than we have done in Ireland.

Nos. 45 to 50 form the collective exhibition of Lauban, and are almost entirely devoted to linen handkerchiefs. These goods are perfectly got up—weaving, bleaching, and finishing. Many manufacturers employ 300 or 400 looms, and the manufacture of these goods fully justifies the favour in which they are held by all, and especially by their Russian neighbours.

In the Russian trade, Irish linen handkerchiefs have always found them their most formidable competitors. We are also favoured with an exhibition of the products of the "kramsta," one of the largest houses in Germany, if not in the world. The mill, it is true, has only 17,000 spindles on flax, and the power-looms are only 500 in number on linen goods; but, between their linen and cotton manufactures, they give employment to 10,000 persons, and are buyers of 420,000 bundles of English yarn yearly. Erdmannsdorf, the King of Prussia's model flax mill, is a large concern, on which nothing has been spared to put it on the best footing. Some 4,000 persons are employed, and they give us a good idea of their makes in drills, diapers, and family linens.

Before leaving Prussia, I must express my regret that the exportation from England for this country, as for many others, appears under the head of "Hanse Towns." This prevents us from knowing exactly what sum we sell to each country. I think our trade with the Silesian part of Prussia is improving under the present tariff, although a wide margin is still left for reduction.

Leaving here the order of the catalogue, which separates Prussia from her late adversary by the Kingdom of Wirtemberg, it will be simpler to cross the Austrian frontier. Here a close resemblance to what we have seen in Prussian Silesia points clearly to the common origin of the manufactures of both sides of the mountains. In this industrious and thriving country the standard of living is low, and the present rate of wages reminds one of the scale in Ireland fifteen years ago. The war of last year fell heavily on the inhabitants of this district, and nearly every village, known before only for its linens—Trautenau, Nachod, Hermannseifen, Rumburg, and many others—has now given its name to a battle. As it has turned out, the war has proved only an episode, and the number of mills built or now building will, no doubt, in a few years, make a great change in the linen industry in this patriarchal country, for which nature has done so much. The great manufacture, both of this district and of Moravia, is fine linen, and the principal peculiarity of the manufacture is the common use of bleached yarns; these they handle in a very superior way, otherwise their weaving them at all would be impossible, as they use daily yarn as fine as 180 in the weft. The exhibition is wanting both in a series of manufactured goods and in samples of the yarn; still, a poorer show of linen than that of Austria might be redeemed by the goods of Herren Rayman and Regenhart, as their quality places them first of their kind amongst the Continental exhibitors. The variety is not great—a tablecloth made for the Emperor of Austria, with a few plainer damasks, a range of linen handkerchiefs, and some fine light linens—but every one must be struck by the perfection of bleach of these latter. A. Kufferle & Co., a Vienna house, who have their manufactory at Frievaldau, a village in Silesia, amply prove that the art of making good damasks and cheap handkerchiefs, with a bleach only to be found elsewhere in Ireland, has taken deep root in the country.

Wirtemberg has in Herr A. F. Lang a manufacturer of more than ordinary merit. He shows excellent reproductions of our own Light Linens, made by both power and by hand labour. The Damasks of Herr Faber, of Stutgard, and the fancy drills of Herr Kissel are very excellent.

Switzerland, the next country in the list, has also cheap labour; but I could only find in her exhibition the Fancy Drills of M. Schoop-Vonderwahl, worthy of notice. Spain, by poor samples of manufacture, shows the effect of a long-continued system of protection,

Portugal buys nearly all its Linens from England, amounting in value to about £50,000 a year. The climate does not seem to suit the manufacture of anything except the very coarsest Towelling, Hessians, Sailcloth, and such coarse fabrics.

In Greece I could see no sign of the exhibition announced in the catalogue.

Sweden shows us some Damasks and plain Linens, made apparently a century ago ; but the Sailcloth of Messrs. W. Gibson & Sons might have come from Dundee.

Russia is certainly advancing. She employs good materials, and makes an excellent article both in Yarn and Cloth. Both the Baltic and Tammerfors Companies give excellent samples ; the former in Yarns, the latter both in Yarns and Linens, fine and coarse. The native manufacturers in White Shirts, Hessians, &c., present some interest, but perhaps the most important exhibitor is the Russian Government, who show the types of the linen they employ in their naval and military services, giving the weight, width, and price of every article.

In the Italian section I was struck with the quantity of embroidered Towels, of which many were at one time made in Ireland. The Italian Linen manufacturers may have held a high rank in past ages ; they certainly have but little in common with the present.

Turkey has thirty-seven exhibitors, but their collective productions would go into a carpet bag. The primitive appearance of these goods is their principal merit.

The United States did not even put in an appearance. They are too intelligent not to feel that, even with their natural advantages and Saxon industry, their protective system prevents their competing on an equal footing with European nations, and they are too proud to figure by the side of Spain or Italy.

It is greatly to be regretted that Barnsley, Dundee, Dunfermline, and the other minor centres of the Linen manufacture of England and Scotland are unrepresented : in their absence, however, the credit of the British trade is fully sustained by the unrivalled exhibition of Linen goods from Belfast. Crowded into this small court we had every article which can be made from Flax, each unsurpassed of its kind, from nail-bags, made of scutchers tow, to the finest Linens and Damasks.

In the Exhibition of 1867, the manufacturers of linen and yarn of the North of Ireland have received four gold medals, and one silver medal, an amount of honour higher than has been awarded to any other district or to any other industry.

Lest any one unacquainted with the machinery employed in the distribution of these prizes should ascribe any portion of that success to partiality on the part of the judges, it is right to state that of the eight members of the linen jury only one was an Englishman ; and it is said that he, with laudable delicacy, allowed his colleagues to decide upon the merits of his countrymen. Belfast may now certainly be said to have fully established her position as the metropolis of the linen trade.

The most striking among the gold medallists is undoubtedly the Belfast "trophy," or collective exhibition, to which thirty of the leading firms of the Belfast district are contributors, and which forms a small museum of the

products of the trade. It contains samples of power-loom warps, first, second, and third qualities, from fine to coarse, with the wefts to suit; strong and light linen warps, with fine wefts up to 300; and the different qualities of tows.

Perhaps the power-loom linens may be found the most interesting item. They are in all descriptions, 7⁰⁰ to 20⁰⁰, narrow and wide, from lawns to strong makes. In fineness and regularity in weaving these goods are not only unequalled, but unattempted elsewhere, and yet nothing in the case is made specially for the Exhibition—a thousand pieces of each could be produced of exactly the same quality, on the shortest notice.

In fine fronting linens and lawns, Belfast has kept up its old reputation; and cambric and linen handkerchiefs, white, printed, sewn, and embroidered, are shown in every form. The damasks are also in great variety; but, unfortunately, the small space prevents their being seen to advantage; even those selected for the most prominent place, and made for crowned heads, are exhibited rather for the bleach, and only a judge can appreciate the perfection of the execution.

The one peculiarity of all the Irish exhibitions, which strikes every passer-by, is their splendid bleach. This seems natural to the country, and for perfect colour, unaltered strength of the tissues, and cheapness of production, forms a wonderful contrast to the foreign courts.

In the Belfast court we have such a multitude of goods for different purposes, and for the use of different nations, that it is hopeless to attempt to notice all, though each is of vast importance as an article of trade. We have linens for American clothing; drills equal in quality to any made at Barnsley, and produced in Belfast at a much cheaper rate; towelling, sheeting, tailors' and shoemakers' thread; the goods sold in South America and the West Indian markets; from the Listadoes, for the clothing of the negroes to the Creas, or the Platillas, Silesias, Estopillas, and Grano di oras, half hidden in their rich ornaments; and printed linen cambric dresses, an article hitherto almost unknown, which has found many admirers among the foreign ladies. These types are to be found repeated more or less fully in all the Irish exhibitions, except, perhaps, in that of Mr. John S. Brown, who has won his medal through the special merits of his damasks. Mr. W. Girdwood, of Belfast, gives the only examples of linens printed in anything like variety. Mr. Girdwood's skill as a printer is too well known to require praise, and the samples which he has shown are neither better nor worse than his everyday work. He deserves double credit for the beauty of the linens which he has selected for the purposes of his art.

The honours accorded to Belfast must be accepted as addressed more to the trade generally than to individuals, else we could scarcely explain the

distributive justice which adjudges a silver medal only to the unsurpassed exhibition of Messrs. Henry Matier & Co., of Belfast; and Mr. Ainsworth, I cannot but think, with due respect to a decision which is now irrevocable, that they deserved something more than a mere "honourable mention." The linen trade of Great Britain cannot but be gratified by the generous award of the International jury.

GOLD MEDALS OBTAINED BY BELFAST EXHIBITORS.

CLASS 28—FLAXEN THREAD AND FABRICS.

18 Gold Medals in all were awarded in this class, of which four were obtained by Belfast exhibitors, viz. :—

The Belfast Linen Trophy. (To get up which a sum of £2,300 was subscribed by the trade.) The first gold medal.

J. & W. Charley & Co., Wellington Place, Belfast, and Seymour Hill, Dunmurry, gold medal.

Fenton, Son & Co. (now Fenton, Connor & Co.) Linen Hall, Belfast, gold medal.

John S. Brown (now John S. Brown & Sons) Belfast and Edenderry, gold medal.

Henry Matier & Co., Clarence Place, Belfast, silver medal.

The unexampled prosperity which had arisen in connection with the linen trade from the outbreak of hostilities in America, caused by the falling off of supplies of raw cotton from the Southern states, continued, as we have seen, down to the close of 1866; for even after peace had been proclaimed a considerable period of time elapsed before work was resumed on the extensive scale which formerly existed in the South; and with the new social status involved in the enfranchisement of the negro population, it was slow and uphill work to regain the lost commercial position which the South enjoyed previous to this unfortunate war; all this time the linen trade derived substantial advantages, and enjoyed unprecedented prosperity.

In consequence of this exceptional state of things a very large and excessive amount of capital was drawn into the Irish trade, and every effort was strained to avail of the golden opportunities of prosperity, and which continued so long as to almost completely deceive even the wisest and most far-seeing men connected with

the business.* We were not singular in this respect; the Scotch trade was likewise abnormally expanded under the unhealthy stimulus thus imparted; whilst in England, and on the Continent, great efforts were made by flax spinners and manufacturers to obtain a share of the general prosperity which thus suddenly and unexpectedly shone upon linen manufacturing.

But with the revival of the commercial position of the Southern States, and the largely increased supplies of cotton which were forthcoming in 1867, prices of that staple fell considerably, and proportionately enlarged the margin between cotton and linen products. A reaction at once set in, and so sudden and serious was the rebound, that depression and gloom settled over the trade which had previously enjoyed such unmixed prosperity.

In reviewing the position of business for the year, as recorded in the Linen Trade Circular, we find it states that "in the mercantile history of the nineteenth century the year 1867 will occupy a place painfully prominent, by the disastrous events which its records will of necessity unfold. After a period of great prosperity, the sinews of industry had become paralysed, as the partially silent spindle and noiseless loom only too clearly testify; and during at least nine months of the year, neither the merchant nor the manufacturer was accorded those rewards which the investment of capital and the exercise of industry should have secured." With a falling off in demand for the market which had taken such largely increasing supplies of goods, during the previous three years, it was not surprising that accumulating stocks at home broke down prices very considerably; the principal shrinkage in value being in power-loom goods, and the coarser descriptions of hand-loom makes; fine goods suffered but little, as the production of these had not been stimulated to any degree corresponding with medium and coarse fabrics.

* We find it needful to qualify these remarks on coming across a communication from a gentleman largely interested in the trade (Mr. J. G. Richardson, of Beesbrook) who foresaw difficulty at least a year previously, and sounded a note of warning.

Writing on the subject of flax supply to the "Northern Whig," on 8rd Feb. 1866, he said:—"The war being over, the enterprising American will without doubt return to the production of cotton with double energy, and in course of a little time as large a crop will be thrown on the world as was ever yet produced. At the same time I am quite ready to admit that, if we could have had flax at moderate rates, we should have held some of the ground we have gained in favour of linens. . . . With regard to the possibility of a commercial disturbance from undue speculation, it does seem but too true, in our experience, that about every ten years we require to be kept in order by a monetary crisis—at least it has been so since I have been in business—1837, 1847, and 1857. Now who can say that it is not possible before 1867? The working of the new joint-stock principle of limited liability will have to be tested by a crisis, ere it will find its proper level; and, therefore, let us in the North of Ireland be wise and prudent, and show a good practical example to the community at large, and prove to the world we can calmly and temperately bear prosperity, as well as suffer adversity when it comes. . . ."

The depression in the manufacturing department quickly told on the spinning, the report stating that "during the months of July and August intense depression prevailed, which was only to some extent, and for a while dissipated by the very judicious adoption, on the part of spinners generally, of working two-thirds time, commencing in August." At close of the year the spinning trade revived a little. 100's line wefts opened in January at 6s 3d, but fell to 4s 3d in December, and 25's tow weft fell from 7s to 5s 4½d.

The drop in prices naturally reached down to the raw material, which opened rather high in August, but fell quickly during the following months, rallying a little at close of year, as things began to wear a somewhat brighter aspect.

1868.—From returns rendered to the Linen Trade Committee in January, the following comparison is made with the figures as returned in 1866 :—

	Mills	Spindles Employed	Spindles Unemployed	Total	Proposed Extension
1866	86	759,452	11,362	770,814	103,792
1868	90	841,867	60,439	902,306	15,032
	Spindles adapted for twisting thread			18,830	
	Factories	Looms Employed	Looms Unemployed	Total	Proposed Extension
1866	44	10,538	266	10,804	6,484
1868	66	11,087	4,130	15,217	996

The Indian Flax Company having been unsuccessful in their efforts to promote the growth of flax, on a profitable scale, in the Punjab, it was resolved to wind up the Company, and for this purpose a meeting was convened on the 24th July, 1868, when a resolution to that effect was unanimously adopted.

This Company certainly deserved very great credit for the efforts they made to grapple with the enormous difficulties which such an enterprise naturally involved; and from the extracts previously given, we obtained a glimpse of some of those difficulties, it is therefore not at all surprising to find that the project proved a financial failure.

Now that this experiment is a matter of history, and whilst the adventure was a courageous one, and quite in keeping with that enterprising spirit for which Belfast has ever been famous, it may be questioned whether, on patriotic grounds, the step was a wise one to have taken.

The plentiful supply of the raw material has been over and over again dwelt upon as of vital importance to the due maintenance of our linen trade, and looking to the fact that not one-half of the supply required is grown in Ireland, it has become a question of constant recurrence—how far this deficiency can be

made up by other countries. We do not, however, find in the past history of the trade that, save in the year 1847, there was any actual want of supplies; and, as we have Russia, France, Belgium, and Holland, all willing to send us from their surplus stocks, and with smaller contributions from other countries, no fears are now entertained that our spindles will be under-fed, much less starved, as was the case in Lancashire during the American war.

This being admitted, the question arises as to how far steps, if any, should be taken by capitalists at home to promote and encourage the growth of flax outside our own country.

It is well known that the flax grown in Ireland, despite of all the means used both by state aid and private enterprise, only at best comes up to a medium quality on the average, and that heretofore farmers have failed to fully profit by the instruction and lecturing they have received; that their efforts, from first to last, should be directed to bring the crop to the highest degree of perfection, and that in proportion to the care bestowed upon its culture and after treatment, the value in a great measure depends, these means being largely within their own control.

This matter was again prominently dilated upon by the president of the Flax Association (Mr. Mulholland, M.P.) at the annual meeting last year.

This Indian Company at first contemplated growing a description of flax of a similar class to that which we get from Russia; but if only this class had been grown it is extremely improbable it could ever have competed with the produce of the Muscovite empire, where the farmers for generations had been trained in the cultivation of the crop; on the other hand, if a superior class of fibre had been aimed at, it would have competed with our home growth, and the inference drawn is that the success of the scheme in the one place would have been counter-balanced by a corresponding falling off in the other, a result which, we need hardly add, would have been very unfortunate.

Had success followed the attempt to grow flax in that remote part of the world, where, it was contended, labour was so cheap, and at the present day is, in many parts, merely nominal, a much more serious state of things than the mere falling off of our home growth might have arisen, for with a decreasing supply of the raw material at home, and an increasing production and cheaper labour abroad, it cannot be doubted that in a very short time capital, for manufacturing purposes, would have been attracted to the spot, and perhaps by this time we might have been chronicling that the flax spindles of the Punjab had reached a quarter of a million, with a proportionate number of power-looms consuming the yarns. When too late we should probably have seen—what

has taken place in the jute trade, machinery and capital transferred from Dundee to the banks of the Ganges—Bombay competing with Belfast in flax manufactures.

These views will be taken for what they are worth, but they have arisen out of a consideration of the efforts of this Indian company to promote the growth of flax in that part of the world.

The year 1868, though by no means presenting so gloomy a picture as 1867, was still very far from being a satisfactory one to either spinners or manufacturers. The former had to contend against an increase in cost of the raw material of from 20 to 30 per cent., which, though some rise followed in yarns, left a very small margin of profit compared with previous year. The home crop showed a falling off of about 23 per cent., notwithstanding efforts of the new flax Association, but prices being comparatively lower in 1867, it produced the result usually noticed—a reduced acreage the succeeding year.

Yarns opened in January at 4s 3d for 60's to 100's, closing in December at 5s 3d for the lower number, and 5s for the higher. 25's tow opened at 5s 7½d, advanced to 7s in May, and closed at 6s 10½d in December. The bank rate during eleven months of the year was only 2 per cent.

The home demand for linens was of a satisfactory nature. The Continental varied very much, being at one period active, and afterwards depressed. American demand showed a further falling off, and prices realised were unremunerative.

1869.—The result of this year's business, instead of showing any improvement on that of the year preceding, was generally regarded as being less favourable, but the depression felt throughout the linen trade was not confined to that branch of our home manufactures, as in various other industrial operations in the United Kingdom a very dull feeling existed.

We assume that the high prices paid for the raw material had a stimulating effect upon farmers in 1869, as the increased breadth sown amounted to about 11 per cent. But the flax crops on the Continent having turned out very good this year, prices of both home and foreign produce fell considerably, spinners demand being very slack, owing to the falling off in trade. Home fibre, which ranged from 8s to 16s per stone in 1868, fell to 5s to 11s in 1869.

Yarns opened at 5s in January for a range of wefts from 70's to 100's, but at close of the year 70's to 130's could be bought at 4s, and 25's tow dropped from 7s 1½d to 6s. The greater part of the year a depressed feeling existed, and to reduce production a resolution was adopted in September, by spinners representing 690,000 spindles, to run only 40 hours per week for ten weeks,

commencing 20th September. Besides this, a large number of spindles were stopped altogether. In November, finding that little improvement had shown itself, spinners unanimously resolved to continue to curtail their production one-third—either by short time or stoppage of machinery. A little improvement in demand sprung up about middle of December, and prospects looked more cheerful as the year terminated. The export trade in yarns kept up very well throughout the year, and the slight recovery in December brought up the total exports a little in excess of the figures of 1868.

In the manufacturing department, prices showed a downward tendency during the greater part of the year, and at the close of it the leading classes of power-loom goods were all more or less cheaper. The home trade kept pretty steady, but the Continental demand fluctuated a good deal, dulness being frequently felt in this branch. As regards the American market, although the advices throughout the greater part of the year were of an unfavourable character, we find the shipments of linen goods from the United Kingdom were, during the first six months of the year, actually one-third over the corresponding period of 1868, and this in the face of a very dull spring demand there. Owing to the immense expansion which the export trade with America received during the war, the productive power which was developed at that period, it was found impossible to contract in the same ratio, now that a reaction in the demand for that market had set in. In times gone by, when such a state of things arose, although it would have doubtless pressed hard upon the weavers throughout the country, the curtailment of production would have been much more rapidly effected than its expansion, and whilst the loss would have been shared more equally by all, trade would have recovered its lost ground much sooner; but the unyielding nature of the factory system, thus put to its first practical test, soon became apparent; and the centralised power was slow to accommodate itself to the altered circumstances of the times. Whatever advantages power-loom weaving had in comparison with the more ancient one of hand labour—and those advantages are admittedly great—its concentrated powers were evidently unfavourable to capitalists, when brought face to face with a suddenly reduced demand.

This being the position of matters, though some curtailment of production undoubtedly took place, the exports to America, which formed some 45 per cent. of the total export trade of the year, showed the comparative helplessness of manufacturers to draw in their producing power to balance the legitimate demand. We accordingly find that to dispose of those surplus stocks of goods

manufactured for a special trade, as no other way of escape from the difficulty seemed left, a large proportion was consigned, on chance of sale, to that market. The result was unfortunate in every way, as prices broke down there, when, in the face of a dull demand, stocks were found accumulating in the bonded warehouses.

In the closing paragraph of the review of the linen trade for the year, we find this admission, that "a large quantity of the goods exported to America had not passed into healthful consumption, but remained in the extensive stores of that country as a supply anticipatory of future wants, and therefore authorising the presumption that future exports to that country may, in consequence, be of a comparatively restricted character."

1870.—Compared with 1869 our staple trade showed symptoms of recovery, and though it can hardly be said to have been remunerative, much fewer losses were sustained than in former years. The outbreak of the Franco-German war in July caused, for a time, much disturbance, and until its possible results became more accurately estimated, business in all departments was much curtailed. Spinners did tolerably well during the spring, but from the commencement of the war until close of the year, both home and cross-channel trade fell off considerably; Continental demand kept up very well, and the exports for the 12 months showed but little diminution. Wefts opened at 4s in January, and receded to 3s 6d in December; 25's tow showed a drop of 3d from the commencement to close of year. The flax crop, both home and foreign, turned out satisfactory this year, the yield and quality of the home growth being excellent; but the dull demand for yarns during the second half of the year, coupled with an enormous increase in imported flax (about 75 per cent. up to November over corresponding period in 1869) broke down home prices, so that in December Irish fibre sold from 5s to 9s 6d, against 6s 6d to 10s 9d the previous year.

In linens the home trade demand was very satisfactory, and the result of the years' trading was of a gratifying and encouraging character. The Continental demand had also improved up to the time of the war, when it then received a check, but a recovery set in about close of the year. The position of the American trade was, however, anything but satisfactory; the loaded state of that market in the spring, owing to the stocks in bond held over from previous year, resulted in forced sales by auction, producing most irregular prices, causing much disturbance to business, and resulting in losses to many shippers. Matters looked a little better in the fall, and general stocks held at close of the year were somewhat reduced, though not to any large extent, as goods

were still consigned throughout year, though probably not to the same extent as in 1869.

1871.—Trade throughout the United Kingdom began to recover this year, and our staple industry shared to a considerable extent in the returning prosperity—a cheerful feeling pervading most departments. Spinners had a very satisfactory business, the market gradually rising from beginning to the close of year. Line wefts opening at 3s 6d and closing at 4s 9d, and weft tows advanced 1s per bundle. A check was, however, felt in September, when, tempted by the advancing state of the market, large parcels of Continental yarns were sent over; still prices were not affected, a firm and upward tendency ruling the market at close of year.

The acreage of flax showed a falling off of about 20 per cent., and the crop for this year was deficient in yield and quality; the season was an unfavourable one, and some of the Russian seed was stated to have been deficient in quality. As the spinning trade was healthy, demand for the raw material was well sustained, and the diminished home supply helped to force up prices, so that quotations in December were from 7s to 13s 6d, against 5s to 9s 6d in 1870.

Power-loom manufacturers were well employed during the greater part of the year, and very large orders were placed for linen suitable for dress purposes, which had come into great favour, and to a largely increased extent; the general home trade demand also was most satisfactory. Altogether, the recovery was in the home market this year, and this improvement indirectly affected the export trade, and stimulated demand somewhat; but the continuance of the Continental war operated against any extensive traffic under this head.

The American trade was rather better also, but the overstocked state of this market with European products retarded recovery, though buyers for the spring trade of 1872 operated much more freely than they did for the fall of 1871.

1872.—This year opened with a buoyant feeling ruling the market, and prices of cloth and yarns continued to advance. The president of the Chamber of Commerce (William Spotten, Esq.) on retiring at expiration of his year of office in February, alluded to the revived position of the linen trade, and his address on that subject, which we reproduce here, will be interesting.

The President, in moving the adoption of the report, said—It is now my duty to move the adoption of the report which has just been read, and I ask your indulgence while I make some observations which may be of importance to all engaged in commerce in this thriving and prosperous portion of the empire.

It is not our habit in Belfast to indulge in boasting, nor to trumpet the progress of our national industry; but I think I may safely assert that there

are few, if any, towns in the empire more solid in its commercial greatness, and none more trusted abroad for honesty and integrity in its business transactions. We certainly have all had our share of business trial and adversity for some years past, owing to the great and unduly sudden increase in our powers of production, caused by the American civil war, and the extraordinary and inflated demand which then existed for all classes of our manufactures; but, notwithstanding, few indeed, and unimportant, were the disasters which occurred during those long years of business depression, and now, I believe, I can confidently state that there is not a loom or spindle in the North of Ireland which cannot be employed to advantage and profit. The Linen Trade—and I give it prominence here, for on its soundness and progress our prosperity as a community to a great extent leans—has seldom been in a more healthy state. Spinners, manufacturers, and merchants are foresold for a considerable time. Stocks of yarns and linens there are none of any importance, unless those held in the bleached and finished state, and even these are in the smallest possible compass; while abroad, judging from the retail character of the orders we are receiving from our friends there, owing, no doubt, to the present high prices ruling here, they hold no stock of Irish goods in excess of their wants. I may truly state, therefore, that our staple trade is enjoying and likely to enjoy for some years a fair share of uninterrupted progress and profit, and in that our working population are getting a full share of its benefits. Wages never were so high, and our people never had more cause to be contented, happy, and prosperous. It may be of interest for me to state that our exports of linen goods from Belfast during the past year were £2,300,000 in excess of 1870, and £3,400,000 in excess of 1869, facts which speak for themselves; while the amount of capital now employed in our producing powers considerably exceeds £5,000,000 sterling; and although our progress in manufactures is considerable, that in population outruns it. Belfast in 1861 numbered 121,000; in 1871, 175,000—a proportionate increase unequalled in any part of the empire, except in one city—and buildings still grow up around us with marvellous rapidity, and houses are inhabited as quickly as they are built. And here I had better state that, although the prices of our fabrics have advanced too rapidly and seriously, still we have not much to fear in this respect with regard to competition, for other fabrics have in general at least kept pace with us. Cotton has advanced about 50 per cent.; cotton yarns, 30 per cent.; and manufactured goods, 15 per cent. to 20 per cent.; wool about 65 per cent.; woollen yarns, 60 per cent. to 70 per cent.; and manufactured goods, 35 per cent. Whether the high prices now ruling will continue, or whether they may check consumption, remains to be seen; but that a reaction after a time may set in is more than probable, all experience in business having shown that such is the invariable result of high prices. I now come to refer to the source of the wealth and future prosperity of the manufacturing industry of this province, which is of the most vital importance to all engaged in it. The cultivation of flax, and those engaged in spinning will admit that the fibre which is the product of Irish soil, although generally defective in preparation, is pre-eminently adapted for a large portion of our production of yarns; but, unfortunately, the short acreage in Ireland in 1871 and diminished yield has seriously curtailed the supply. The year 1871, as compared with that of 1870, shows a diminution of about 62 per cent. in production, and 19½ per cent. in area appropriated to the crop. Many causes have conspired to produce this unfavourable result, and the most serious has been a succession of adverse seasons for the growth of the flax plant. This cannot continue, and with a revival of favourable yield, farmers, it is to be hoped in their own interest, will be encouraged to resume the culture on the same scale as they did in former years. The prices which were obtained this season, and which the present prosperous condition of the linen trade may reasonably cause them to expect for the produce of next

summer's crop, should check the curtailment of the area, which has been too apparent for the past two years. The report of the Flax Supply Association is reassuring that our spinners will not be starved for want of material, but this feeling of security, considering the increased demand which now exists for our fabrics, should not cause a suspension of efforts to increase our home supply of flax, which for suitability is on what we have mainly to depend.

The great activity which prevailed in every department of the staple industry, owing to the civil war in America, had the effect of stimulating several other branches of trade in various parts of Ulster. Lurgan extended its borders, and Portadown spread out its boundaries. Old mills were enlarged, new ones erected; and power-loom factories reared their tall chimneys where never before the steam-engine was known. All this caused extra demand for hands connected with the building trade, and wages rose fifty, and, in some cases, one hundred, per cent. Wages of factory hands had also been increased considerably. By way of comparison, we may mention that when the Messrs. Mulholland commenced mill spinning in 1830, 7s to 9s a week formed the range for men; 4s to 5s for women, and 2s 6d to 4s for boys and girls under 16 years of age. In April, 1872, the scale of remuneration, which had been from time to time raised by the employers, exceeded that of 1830 by 100, 150, and, in some instances, 200 per cent.

Early in this year, owing to the greatly improved state of trade in all branches throughout the United Kingdom, extravagant views were put forth by the operatives in the manufacturing districts of England for an advance in wages, and by means of well-organised federations of workmen, capital was suddenly brought face to face in a determined struggle with labour.

The metal trades being extremely active in the spring, wages in the mining districts rose rapidly, and in addition to this the men only worked half time, so that with a greatly curtailed supply of coal, prices advanced until they were double the rates ruling the previous year. Next, in all departments of manufacture, whether textile, mechanical, or by whatever designation known, a general advance was demanded, and to accomplish this result the more quickly, strikes, on a scale never before dreamt of, were the universal levers employed.

The advance in labour enhanced the value of products of all descriptions, and, as a natural effect, this great social movement permeated every class and section of the community. Of course, our trade could not expect to escape the influence of such a disturbance, and we accordingly find that a class of workmen in the spinning mills, called "flax roughers," not succeeding in obtaining the full advance they demanded, struck work in May. Finding they would not abate their demands, spinners were driven to the necessity of stopping their machinery, and in June about

400,000 spindles were silent. This state of things, however, only lasted a couple of weeks, as the roughers yielded to the terms originally proposed by the millowners, which was an advance of 2s per week on the rates previously current. Other mill and factory hands also obtained an advance, so that with increased cost of production in coal and wages, spinners and manufacturers' profits were considerably reduced.

Demand for yarns fluctuated very much during the year, but prices kept tolerably steady, and at its close stood nearly as high as at the commencement, whilst the tone of the market was firm.

Though the breadth of flax showed a decrease, the quality and yield were far superior to 1871, which was estimated at only 14 stones to the acre, against 25 this year. Prices in 1871 were comparatively high, but taking into account the small yield per acre, the crop was not so remunerative to the farmer; and though quotations dropped 1s to 1s 6d per stone in 1872, the crop was a very much more profitable one.

The home department of trade throughout the year, though by no means so lively as during the preceding, was nevertheless characterised by much steadiness. There was a falling off in demand for fine shirting linens, but coarser fabrics, roughs and dress linens, moved off freely.

Owing to increased cost of production, prices of cloth kept high, and as the labour movement had not spread among the masses on the Continent so quickly as at home, our manufacturers were placed at a disadvantage, and trade with Germany, Italy, and Russia exhibited a marked decrease.

Demand for the American spring trade having been fairly active, exports for the first six months showed a large increase, but trade in the autumn being much quieter, a falling off in the second half of the year took place.

1873.—The unfavourable features which appeared in 1872 in reference to the demands of labour, and the consequent general rise which followed in every department, enhancing the cost of production, and seriously reducing the profits on capital, continued to operate with increased severity during 1873. Against this general advance our trade had to contend, and, to add to the difficulties of the position, a panic of unusual severity took place in New York in September, mainly arising from excessive and wild financial speculations in railways and other public undertakings. This reacted severely on business, and resulted in extensive and widespread disturbance throughout every rank and class, every department of commerce feeling the pressure. Our staple industry felt the shock very severely, and for many months transactions were greatly curtailed, and shipments for the remainder of the year

much reduced. The general trade of the United Kingdom with the United States showed a considerable falling off this year. The aggregate of failures throughout the States was very large, and many extensive dry goods importers were obliged to sacrifice their stocks at low prices, the market being so completely disorganised. Great shrinkage in values followed this disruption, and as industrial operations and public works were suddenly contracted, or altogether suspended, immense numbers were thrown out of employment. Economy and retrenchment followed in every department, and with an overstocked market in nearly all commodities before the panic, this sudden and unexpected reduction of the consuming capacity of the United States produced widespread and long-continued depression. Our manufacturers had, of course, to share to a large extent in the losses and consequent curtailment of trade which naturally followed; and whilst prices of cloth were drooping in the latter half of the year, yarns kept very high.

The home trade demand was large throughout the year, and the increased business in linens for dress purposes, which sprang up during the five years previous, was well sustained, and gave a large amount of employment to our power-looms, making up to some extent for the loss on American account. General trade with the Continent showed further falling off, which must in some measure be attributed to the effects of the war and the advance in labour which was also taking place on the Continent.

A small increase was observable in the extent of flax-grown in Ireland this year; but the quality and yield were much inferior to those of the previous crop. This, coupled with an increase on the imports of foreign fibre, and a falling off in trade, told upon prices; but the difference was small compared with 1872. In concluding their review, the Linen Trade Committee stated, "That the year was both for manufacturers and merchants, one of discouragement, nor could the greatest prudence and caution have prevented the difficulties which arose. Many manufacturers had, for the greater part of the year, to contend against prices of yarns beyond the proportionate prices of cloth, in addition to which they were saddled with a larger stock of cloth than usual, owing to a restricted demand, whilst merchants, in order to effect sales, had to submit to prices which were not remunerative."

An International Exhibition was held this year at Vienna, and several Irish firms contributed samples of Linen Manufactures. By the official report we find that medals were awarded to Messrs. George Betzold & Co., Dicksons, Ferguson, & Co., Fenton, Connor, & Co., Jaffe Bros., and Moore & Weinberg, all of Belfast, for the excellent quality of the goods they exhibited.

1874.—The disturbance which trade suffered by reason of the rapid advance in value of labour, culminated, as we have seen, in a crisis in the United States, September, 1873, the reflex of which on the home market soon became apparent. With the collapse of many great railway enterprises demand for iron and steel, and all manufactures of that kind, fell off considerably; this brought about a reaction in the iron and coal trades, and a long and determined struggle was now entered upon between employers and employed. If the power of combination was often exercised in an unreasonable manner, to effect a rise in wages which circumstances did not warrant, fierce and prolonged was the resistance, to prevent the reduction which was now inevitable. As labour rose much more slowly on the Continent than in the United Kingdom, we had to contend not only against a greatly reduced demand for our staple products, but had to witness many of the orders previously placed in English markets sent to foreigners, and in the spring of this year Belgian iron could be sold in London at lower rates than the production of Staffordshire. Being thus undersold in the leading products of the kingdom, nothing remained but a reduction of wages, or blowing out of furnaces, and in numerous instances the latter had to be resorted to as the only argument to convince the international combination of workmen that prices had been pushed to a point that prohibited traffic in those commodities in which, though constituting the main stay of England's commerce, they possessed no monopoly.

Sad, indeed, it is to reflect on the enormous waste of national wealth which followed the self-enforced idleness of tens of thousands of labourers, not only in the coal and metal trades, but also in the textile and other industrial works of England, Scotland, and Ireland. But if the national loss through unproductive labour was great, the loss in individual instances was, to untold numbers, the savings of a lifetime; whilst the ultimate issue, which they were powerless to resist, widened, in many instances, the breach between employers and employed, which this clash of interests involved.

Our trade suffered in some measure from the effects of this struggle; but as this brings us to a period which is still fresh in our recollection, we shall take leave to here insert the report of the Linen Trade Committee, on the position of business during 1874:—

In common with almost every other mercantile and manufacturing industry in the United Kingdom, the Irish linen trade suffered from the wide-spread depression which prevailed, not only at home, but abroad, during the past year. Labour rose so rapidly in the various markets of the world, but especially in the United Kingdom during the three preceding years, as not only to paralyse, but in some instances to completely check trade in many departments.

. Combinations of trade unions, and organised strikes, on a scale never before attempted, were the agencies employed by labour in the war waged against capital ; but when the inevitable reaction came, in spite of all the resistance offered, a readjustment set in between the two elements, showing how essentially inter-dependent the one is upon the other, to sustain the prosperity of both. Labour has, consequently, been steadily falling in various branches of trade, in a greater or less degree corresponding with the previous rise. There is, however, another element in connexion with our trade to be taken into account, considering how dependent it is, for the consumption of so large a proportion of its products, upon the American market, whatever interferes with the general prosperity of trade on that great continent affects our industry in a corresponding measure.

The position of matters in the States, and the events which have transpired during the past year and a half, are too well known to require to be enlarged upon here. The great advance in labour, coupled with reckless speculation, were the main elements which contributed to the financial panic of September, 1873, from the effects of which the country is but slowly recovering. Our trade keenly sympathised with the state of trade in the American market, and naturally to so good a customer we look for an impetus to renewal of life at home.

At the commencement of the year there was a slight indication of improvement in demand, but as the year advanced the dulness, which had characterised trade for a long time previous, increased, and was heightened during the summer by a strike, against a reduction in wages, among our mill and factory operatives, which lasted for about two months, ending in a compromise. Towards the close of the year a better feeling seemed to spring up, and transactions were entered upon with more spirit ; prices of both cloth and yarns became firmer.

Linen Yarns.—Trade during the past year was generally of an unsatisfactory character, the causes which affected the demand for linen manufactures, and their decline in value, reacted upon the yarn market, which, for the greater portion of the year, had to contend against drooping prices and curtailed consumption.

In sympathy with a slight improvement in trade at the beginning of the year, quotations kept pretty steady until March, though production was in excess of consumption. Prices then became easier, and before April closed quotations of line wefts were $4\frac{1}{2}$ d to 6d per bundle lower than at the commencement of the year. Tow warps kept firm during this time, but wefts receded $1\frac{1}{2}$ d. From this period down to end of June, general demand, both on home and export account was dull. Although the strike in July and August (which lasted generally about seven weeks) was estimated to have reduced production of yarns by about one-and-a-half million of bundles, trade continued quiet, and prices without change till end of September. Demand then slackened, and prices became easier ; stocks gradually creeping up from that time to middle of November, when a turn for the better set in, and considerable parcels of lines and tows were bought by merchants and manufacturers. Several spinners cleared off their stocks, and prices slightly hardened, a firm tone being imparted to the market, which it generally retained down to the close of the year.

Home and Export Linen Trade.—The year opened with a very fair consumptive demand for various classes of fabrics, especially medium and low priced goods, the finer descriptions not moving so freely. During the greater part of the year, a steady trade continued to be done, though at times buying was restricted to small parcels for immediate requirements. At same time, the amount of stock turned over was quite equal to previous year, the healthy tone being fully sustained all through, with indications of improvement at the close,

Continental.—The actual stocks placed in Continental markets were quite equal to previous year, and the Board of Trade returns show that the exports from the United Kingdom were in excess ; Russia, Germany, France, Spain, and Italy all taking larger supplies.

West Indian.—The great falling off in demand for these markets has been severely felt by our trade. The unfortunate condition of Spanish affairs reduced the consumptive demand for the principal market of Havana to half of what it was two years ago, however, at the close of the year, there were some signs of improvement. Trade with Hayti and other islands has also greatly diminished.

South America.—These markets likewise show falling off in demand, the exports being only about one-half of what they were two years ago. The chronic political disturbances in most of the Spanish settlements seriously retard development of trade.

Australia.—This market, which ranks among our best customers, and stands equal to Germany in the amount of goods taken last year, shows an improvement compared with 1872.

United States of America.—The markets of this country occupy the first rank, in point of importance, for consumption of all classes of linen fabrics, and though the past year shows a falling off of about $3\frac{1}{2}$ per cent. in the quantity exported from the United Kingdom, the actual money value is $1\frac{3}{4}$ per cent. higher. Compared with 1872, the exports were about $17\frac{1}{4}$ per cent. less in value. That year, however, should not be taken as a fair criterion of demand, as there is reason to suppose consignments were much heavier than for the past two years.

1875.—On the 22nd January the Flax Supply Association held their eighth annual meeting in the Chamber of Commerce, Belfast—John Mulholland, Esq., M.P., President, being in the chair.

This Society, which we saw was formed in 1867, very much extended its field of action, and has been every year gaining in public favour, and much interest attaches to the official information which from time to time emanates from it. Mr. Andrews, the Secretary, wrote a pamphlet—giving instructions regarding the culture of the flax plant—which has been extensively and gratuitously distributed by the Association. The statistical and historical information, embodied in their annual reports, will form interesting material in following up the history of the trade in future years.

The report presented at this meeting stated that the flax crop of last year gave a very fair average yield, but not equal to what the length and bulk of the straw indicated. And though there was a decrease in the acreage sown, amounting to over 17 per cent., the superior yield of the crop reduced the actual decrease in the quantity of fibre to about 5 per cent.

For yarns the year opened with an improved demand, and prices kept steady till March, when an easier turn took place, and in April the range of line wefts had dropped from 3s 10½d in January to 3s 9d; 25's tow wefts from 6s 4½d to 6s 3d. A recovery took place in May, and prices advanced 1½d to 3d per

bundle. In July the range of wefts stood at 4s, and 25's tow weft 6s 4½d, with a fair demand on home and export account. Owing to the partial failure of the flax crops on the Continent, the raw material began to advance from this month, and kept steadily rising down to the close of the year. This affected the home markets, and Irish flax advanced on an average about £15 per ton between August and December. The position of the market for the raw material stimulated trade in yarns, and during the second half of the year a very large turn over of stock took place, prices gradually creeping up until the range of wefts reached 4s 4½d, as a minimum; other numbers in proportion; and 25's tow weft, 6s 9d.

Linens sympathised with the upward movement which set in in July, and brown power-loom cloth for bleaching, dyeing, and dress purposes advanced considerably in price, and held firmly to the top rates down to close of the year. The home and export demand for finished brown goods was also of a very fair character, and the position of this branch of trade showed a decided improvement compared with previous year. Bleached goods were, however, much slower in responding to the improved position of the brown cloth market, and though some improvement in demand set in, and slightly better prices were obtained, the advance was not at all in proportion to that which the goods showed in the loom state. The anticipated recovery in trade in the United States was not realised, and demand both for the spring and fall season was of a very dull character; the effects of the panic of 1873 being much more widespread and long continued than had been at all anticipated. We can only indulge the hope that by this time the force of this severe reverse has almost spent itself, and that the year 1876 will witness a brighter state of things, and a gradual improvement in the industrial and commercial resources of that great country. The Exhibition in Philadelphia, which will be opened in May—in commemoration of the declaration of independence made a century ago—we think must give a fillip to trade, and stimulate commerce. Throughout the United Kingdom the year closes with a rather dull feeling, but though returns of trade exhibit a falling off in nearly all the textile manufactures of the United Kingdom, the exports of linen yarns and linen cloth show an improvement compared with last year. Our industry is in a much healthier condition than it was, and though financial difficulties involved the suspension of a few firms of long standing, the innate soundness of the trade has not been in any way affected. We therefore look forward with a hopeful feeling that, in recording the history of our staple industry next year, we shall have the satisfaction of noting a decided advance compared with the one which has passed away.

Though the flax crop of this year showed a decrease in the acreage sown of 5,702 acres, the yield was far superior to that of 1874 ; and as farmers realised very high prices all through the season, it is fully expected that there will be a considerable increase in the acreage sown next year.

1876.—In the year 1871 steps were taken by the Legislature of the United States of America to commemorate, in the year 1876, the one hundredth anniversary of American independence. An Act was, accordingly, passed, by the Senate and House of Representatives, in Congress assembled, the preamble of which runs as follows :—

“Whereas,—The Declaration of Independence of the United States of America was prepared, signed, and promulgated in the year 1776, in the City of Philadelphia ; and, whereas, it behoves the people of the United States to celebrate by appropriate ceremonies, the centennial anniversary of this memorable and decisive event, which constituted the 4th day of July, 1776, the birthday of the nation ; and, whereas, it is deemed fitting that the completion of the first century of our national existence shall be commemorated by an exhibition of the natural resources of the country and their development, and of its progress in those arts which benefit mankind, in comparison with those of older nations ; and, whereas, no place is so appropriate for such an exhibition as the city in which occurred the event it is designed to commemorate ; and, whereas, the Exhibition should be a national celebration, in which the people of the whole country should participate, it should have the sanction of the Congress of the United States. Therefore—Section 1. Be it enacted. . . . That an Exhibition of American and Foreign arts, products, and manufactures shall be held, under the auspices of the Government of the United States, in the City of Philadelphia, in the year 1876.”

Then follow details respecting the arrangements, &c.

In 1874 the President was authorised by an Act of Congress “to extend, in the name of the United States, a respectful and cordial invitation to the Governments of other nations, to be represented and take part in the International exposition.”

Our Government having accepted the invitation, the British section is under the direction of the Lords of the Committee of Council for Education. His Grace the Duke of Richmond, K.G., Lord President of the Council, and Colonel Herbert Sandford, R.A., and Professor T. C. Archer, F.R.S.E., Joint Executive Commissioners.

A brief description of the building in which the Exhibition will be held may be interesting.

The main exhibition building is in the form of a parallelogram, extending east and west 1,880 feet in length ; and north and south 464 feet in width. The larger portion of the structure is one storey high, and shows the main cornice upon the outside at 45 feet above the ground ; the interior height being 70 feet. Upon the corners of the building there are four towers 75 feet in

high. The roof over the central part, for 184 feet square, has been raised above the surrounding portion, and four towers 48 feet square, rising to 120 feet in height, have been introduced at the corners of the elevated roof. The areas covered are as follows:—

Ground floor,	872,320 square feet, 20.02 acres
Upper floors in projections, ...	37,344 ,, .85 ,,
Do. in towers, ...	26,344 ,, .60 ,,
	<hr/>
	936,008 21.47

Besides the main building, there is an Art Gallery, which is one of the annexes to the Great Exhibition, and is located on a line parallel with and northward of the main building. The materials are granite, glass, and iron; no wood is used in the building. This structure is 365 feet in length, 210 feet in width, and 59 feet in height, over a spacious basement 12 feet in height, surmounted by a dome. There is also a Horticultural building, 383 feet long, 193 feet wide, and height to top of the lantern 72 feet. Besides this, there are Agricultural and Machinery buildings, to provide for the various departments; the following being a summary of the total available space:—

Main building, ... covering	21.47 acres
Art gallery,	1.05 ,,
Machinery building, ...	14 ,,
Horticultural building, ...	1.05 ,,
Agricultural building, ...	10.15 ,,

The Exhibition will be held at Fairmount Park, in the City of Philadelphia, and will be opened on the 10th of May, 1876, and closed on the 10th of November following.

In the departments there are ten classifications. Of these No. I. is devoted to raw materials—mineral, vegetable, and animal; and No. III. to textile and felted fabrics, apparel, costumes, and ornaments for the person.

We have much pleasure in being able to announce that the Irish linen trade will be represented in this Exhibition, and although the number of exhibitors will be few, we have little doubt that our staple industry will, so far as excellence is concerned, fare well at the hands of those firms who, at very great trouble and expense, have undertaken to contribute samples on this occasion.

From inquiries which we have made we may mention the names of some of these, and also the goods which they intend sending out. The high position they hold is a sufficient guarantee that in the textile section our national reputation will

be fully sustained ; and we heartily wish these spirited firms the first rank in this special department.

Messrs. John S. Brown & Sons, of Bedford Street, Belfast, will exhibit damasks, diapers, linens, and sheetings, in white and brown state, also handkerchiefs, &c.

Messrs. Dicksons, Ferguson, & Co., Belfast, intend exhibiting linens unbleached and bleached ; sheetings, handkerchiefs, drills, glass towels, huckaback towelling ; also bleached damasks, Turkish towels, &c.

Messrs. Dunbar, M'Master, & Co., Gilford (County Down), Ireland, flax spinners, linen thread manufacturers, and bleachers, will exhibit linen thread for hand and machine sewing, for knitting, and crochet ; for lace ; for fishing nets, &c. ; for shoe and saddlery purposes, &c. Grey and bleached yarns for weaving linens, damasks, drills, cambrics, &c.

Messrs. Fenton, Connor, & Co., Linen Hall, Belfast, intend exhibiting linens of all kinds, brown, white, and printed ; also damasks, handkerchiefs, drills, &c.

Messrs. Henry Matier & Co., Clarence Place, Belfast, will exhibit handkerchiefs of all kinds, bleached, hemmed, hemstitched, printed, tucked, and embroidered ; bleached and printed linens, printed dresses, damasks, &c. ; also embroidered cuffs and collars for ladies. In these samples of linens and handkerchiefs some of the finest manufactured goods will be shown.

Messrs. J. N. Richardson, Sons, & Owden, Belfast, will show samples of shirting and fronting linens, diapers, damasks of finest makes, cambric and linen handkerchiefs, bordered and hemstitched ; pillow linens, sheetings, dress linens, hollands, &c. ; amongst these will be found samples of the most superior manufacture.

Our little work has now come to a close, and we hope that the information collected may be found useful. In endeavouring to grasp a comprehensive subject like this, where an attempt has been made to compress a large amount of matter into narrow bounds, the difficulty of selecting materials from a mass of information, scattered through an innumerable number of books and documents of various kinds, was very great. Without unnecessarily encumbering the work with details, our aim has been to supply just sufficient to illustrate it in its several stages, and at same time, as far as practicable, to preserve an unbroken chain in the historic sketch. How far we have succeeded in this respect our readers will judge. The subject deserved better treatment than it has received ; but, within the limits prescribed, we trust a fair view

has been presented of the linen manufacture in ancient and modern times.

Appended to the Handbook will be found tables showing the Export trade in Linen Yarns and Cloth, during the past and present century.

In another Appendix a condensed report is given of the textile factories of the Continent, and of the United States of America, compiled from Parliamentary blue books published in 1873. In addition to this, tables of Duties, charged by foreign countries, on the Flax Manufactures of the United Kingdom, are supplied.

The Directory of the Irish Linen trade forms the concluding portion of our work. The names are not as complete as could be wished, but it was impossible in the first edition of the book to make this section quite accurate. In our next edition we hope to rectify any errors and omissions which were unavoidable in this, and shall be obliged if any of our readers will kindly supply us with the necessary information for this purpose.



APPENDIX I.—LINEN TRADE—IRELAND.

AN ACCOUNT OF LINEN CLOTH PLAIN, AND LINEN YARN, EXPORTED FROM IRELAND, BETWEEN 1728 AND 1821.*

Years ending at Lady-day	LINEN PLAIN	LINEN YARN		Years ending at Lady-day	LINEN PLAIN	LINEN YARN	
	Exported	Exported	Exported		Exported		
	Yards	c.	q. lbs.		Yards	c.	q. lbs.
1728	4.692.764	11.450	0 6	1775	20.205.087	30.598	3 5
1729	3.927.918	11.855	3 1	1776	20.502.587	36.152	2 5
1730	4.136.203	10.088	1 9	1777	19.714.638	29.698	1 10
1731	3.775.830	13.746	0 6	1778	21.945.729	28.108	3 10
1732	3.792.551	15.343	2 16	1779	18.836.042	35.673	0 15
1733	4.777.076	13.357	2 21	1780	18.746.902	42.369	3 25
1734	5.451.758	18.122	0 22	1781	14.947.265	37.202	2 0
1735	6.821.439	15.900	3 20	1782	24.970.303	28.187	3 0
1736	6.508.151	14.743	3 13	1783	16.039.705	35.812	3 23
1737	6.138.785	14.695	2 11	1784	24.961.898	33.013	2 15
1738	5.175.744	15.945	3 3	1785	26.677.647	28.842	1 5
1739	5.962.316	18.200	1 6	1786	28.168.666	31.062	0 20
1740	6.627.771	18.542	3 8	1787	30.728.728	31.049	2 0
1741	7.207.641	21.656	3 14	1788	35.487.691	27.275	0 11
1742	7.074.168	16.330	2 22	1789	29.344.633	28.742	2 0
1743	6.058.041	14.169	1 10	1790	37.322.125	31.572	3 20
1744	6.124.892	18.011	0 1	1791	39.718.706	26.999	2 15
1745	7.171.963	22.066	1 25	1792	45.581.667	17.190	2 14
1746	6.836.667	27.741	3 20	1793	43.312.057	16.644	2 3
1747	9.633.884	28.910	2 20	1794	43.257.764	19.056	1 20
1748	8.692.671	19.418	0 6	1795	42.780.840	22.730	3 10
1749	9.504.339	21.694	0 20	1796	46.705.319	20.601	0 5
1750	11.200.460	23.373	0 5	1797	36.559.746	12.865	1 0
1751	12.891.318	23.743	0 20	1798	33.497.171	20.330	2 15
1752	10.656.003	23.407	0 5	1799	38.466.289	16.850	3 5
1753	10.411.787	23.238	0 5	1800	35.676.908	12.201	1 0
1754	12.090.903	22.594	2 0	1801	25.041.516	11.135	1 0
1755	13.379.733	27.948	3 7	1802	37.767.077	23.492	1 0
1756	11.944.328	26.997	0 15	1803	35.491.131	9.315	0 0
1757	15.508.709	31.078	8 15	1804	37.432.365	7.847	0 0
1758	14.982.557	31.995	0 15	1805	42.988.621	8.967	0 0
1759	14.093.431	27.571	0 0	1806	43.534.971	7.075	0 0
1760	13.375.456	31.042	1 15	1807	39.049.727	8.705	2 0
1761	12.048.881	39.699	2 25	1808	40.901.442	12.443	0 0
1762	15.559.676	35.950	1 25	1809	43.904.382	25.392	0 0
1763	16.013.105	34.468	0 7	1810	37.061.859	13.701	0 0
1764	15.201.081	31.715	1 25	1811	36.846.971	6.049	0 0
1765	14.355.205	26.127	0 0	1812	31.392.845	9.282	0 0
1766	17.892.102	35.018	1 0	1813	35.787.671	21.043	1 0
1767	20.148.170	30.274	3 0	1814	38.994.381	19.123	0 0
1768	18.490.019	32.590	1 25	1815	42.964.064	11.362	0 0
1769	17.790.705	37.037	0 20	1816	43.383.732	11.934	0 0
1770	20.660.754	33.417	0 15	1817	45.617.854	13.852	0 0
1771	25.376.808	34.166	0 10	1818	55.770.636	14.008	3 0
1772	20.599.178	32.441	2 25	1819	50.805.586	10.626	3 0
1773	18.450.700	28.078	3 25	1820	37.464.279	5.553	1 14
1774	16.916.674	29.194	1 10	1821	43.507.928	9.256	3 7

* From Returns published by Linen Trade Board in 1821.

RETURN OF LINEN YARNS AND LINEN MANUFACTURES EXPORTED
FROM THE UNITED KINGDOM FROM 1831 TO 1875.

Years.	LINEN YARN.		LINEN MANUFACTURES.	
	Quantity (lbs.)	Declared Value.	Quantity (yds.)	Declared Value.
1831	...	...	69.283.892	£2.461.704
1832	110.188	£8.705	49.531.057	1.774.727
1833	935.682	72.006	63.232.509	2.167.024
1834	1.533.325	136.312	67.834.305	2.443.346
1835	2.611.215	216.635	77.977.089	2.992.143
1836	4.574.504	318.772	82.088.760	3.326.325
1837	8.373.100	479.307	58.426.333	2.127.445
1838	14.923.329	746.163	77.195.894	2.820.272
1839	16.314.615	818.485	85.256.542	3.414.967
1840	17.733.575	822.876	89.373.431	3.306.088
1841	25.220.290	972.466	90.321.761	3.347.555
1842	29.490.987	1.025.551	69.232.682	2.346.749
1843	23.358.352	898.829	84.172.585	2.803.223
1844	25.970.569	1.050.676	91.283.754	3.024.800
1845	23.288.725	1.060.566	88.401.670	3.036.370
1846	19.484.203	875.405	84.799.369	2.830.808
1847	12.688.915	649.893	89.329.310	2.958.851
1848	11.722.182	493.449	89.002.431	2.802.789
1849	17.264.033	732.065	111.259.183	2.493.829
1850	18.220.688	881.312	122.342.516	3.947.682
1851	18.841.326	951.426	129.106.753	4.107.396
1852	23.928.592	1.140.565	133.192.627	4.231.786
1853	22.893.586	1.154.977	134.165.291	4.758.432
1854	17.696.867	944.502	111.648.657	4.119.043
1855	18.177.484	932.981	118.039.721	4.118.013
1856	25.118.349	1.365.980	146.410.188	4.887.780
1857	28.847.811	1.647.953	133.687.197	4.516.880
1858	32.047.492	1.746.340	122.561.748	4.124.356
1859	27.290.387	1.674.602	138.120.498	4.590.698
1860	31.210.612	1.801.272	143.996.773	4.774.669
1861	27.981.042	1.622.216	116.322.469	3.840.909
1862	32.584.676	1.854.866	156.871.020	5.131.104
1863	38.553.643	2.535.728	180.395.967	6.448.126
1864	40.510.967	3.010.109	209.859.714	8.158.545
1865	36.777.334	2.505.497	247.012.329	9.155.358
1866	33.666.338	2.380.032	254.943.531	9.576.163
1867	34.103.859	2.453.684	211.972.840	7.473.106
1868	32.857.117	2.309.111	209.380.250	7.094.319
1869	34.565.542	2.328.778	214.925.554	6.798.373
1870	37.122.747	2.233.826	226.470.696	7.378.284
1871	36.397.781	2.220.103	220.966.101	7.521.561
1872	31.218.749	2.141.649	245.019.404	8.247.664
1873	28.730.138	1.975.738	208.123.476	7.295.121
1874	27.164.268	1.721.205	194.682.464	7.123.596
1875	27.814.636	1.854.804	204.444.130	7.270.644

The figures from 1881 to 1888 are those given in "Warden's Linen Trade."

APPENDIX II.

PARLIAMENTARY REPORT ON FACTORIES FOR THE SPINNING
AND WEAVING OF TEXTILE FABRICS ABROAD.

The National Association of Factory Occupiers in Great Britain and Ireland having, on the 11th July, 1872, presented a Memorial to the Government, praying "that authentic and reliable information might be obtained and published as to the hours of labour, the rates of wages, and the progressive increase of production in factories for the spinning and weaving of textile fabrics on the Continent, especially in Germany, Austria, Belgium, Holland, France, and Switzerland," the Secretary of State for the Home Department caused circular letters to be addressed to her Majesty's representatives abroad, requesting that they would furnish the Government with such information on the subject as they could ascertain. Accordingly, in the latter end of 1872, and during 1873, reports were forwarded to the Government, and from the Parliamentary books, published in 1873, we present the following abstract, so far as relates to flax spinning and weaving, and trust that the condensed summary will be found useful.

This is the latest information we have of an official nature, and although published about two years and a half ago, in all probability the state of these factories on the Continent shows very little difference from the position then recorded; as since that period trade all over Europe has been in a stationary position, or has barely maintained itself at the point reached when these reports were compiled. There is no report on the Manufactures of France, as when these books were published the Government had not received information on the subject.

BELGIUM.

Almost the whole population of the two Flanders may be said to be engaged, directly or indirectly, in the linen trade, from the cultivation of flax on the banks of the Lys and steeping it in the adjoining ditches till the manufactured article is ready for sale. Almost all the finer qualities of Belgian flax, called "Flax of the Lys," from its being steeped in that river, is bought by England, and partly returned as yarn, Belgian spinners importing coarse Russian, and confining themselves to the production of coarse yarns. The spinning is done in eighteen or nineteen steam-power mills, containing about 222,000 spindles, and employing 10,000 hands. The weaving, on the contrary, is mostly done by hand by the men working at home or in "ateliers d'apprentissage." There are, indeed, only three or four large steam-power

weaving factories in Belgium, it being the custom for manufacturers to supply artisans with yarns to weave at home.

With the exception of three large factories at Alost, producing linen sewing thread, the flax spinning trade has of late years been concentrated at Ghent, which city contains, among many others, two mills of great size, working 51,000 and 44,000 spindles respectively, and each employing 2,000 operatives.

In one of the smaller spinning mills, employing about 300 hands and working 700 spindles, I observed that in the first process, *i.e.*, the cutting and cleaning of the flax, none but boys were employed, who earned from 50 to 75 c. a day. The men employed for dressing and classifying the flax earned up to 2.50 fr. per day. The rest of the work was done by women, who were paid up to 2 fr. per day.

The hands worked for twelve hours daily, *i.e.*, from 7 to 12 a.m., and from 1 to 8 p.m. without interruption, the occupier having suppressed the usual periods of repose at 8 a.m. and 4 p.m. at the request of his workmen, who preferred leaving off work a little sooner.

The wages in this mill are perhaps a little below the average, as only the coarser qualities of flax are employed. But 2 fr. per day are considered good wages for a woman in Ghent, and the Chamber of Commerce of Courtrai mentions, as a proof of the prosperity of trade in 1871, that weavers earned 2 fr. 50 c. per day. I have obtained the following information respecting the wages, hours of labour, and expenses of the hands in a large linen factory in Ruysbroeck, near Brussels, employing about 800 operatives.

Foremen receive 5 fr. and upwards per day, 1st class hands receive per day, 2 fr. 75 c.; 2nd class, 2 fr.; 3rd class, 1 fr. 25 c.; women, 1st class, 2 fr.; women, 2nd class, 1 fr. 75 c.; women, 3rd class, 1 fr.

During seven months of the year, working hours are from 6.30 a.m. to 5.30 p.m., broken by intervals of repose, *viz.*, at 8 a.m., half-an-hour; at noon, one hour; and at 4 p.m., a quarter of an hour.

During the five summer months, the hours are from 5.30 a.m. till 7 p.m., with the same wages and intervals of repose. Extra work is paid for at the rate of 25 c. per hour. Children under 12 years of age are not, as a rule, admitted.

The rent of a small house of four or five rooms, with a little garden, cellar, and garret, is from 10 to 12 fr. per month.

The principal articles of food are bread, potatoes, bacon, coffee, chicory, and white cheese. Chicory and bread for breakfast, potatoes and vegetables cooked with bacon at noon, and vegetable soup with bread and white cheese for supper. Light beer and water are the chief beverages.

By joining a family, it is possible, for a single man to be lodged and fed for 35 fr. per month.

The following remarks apply to the busy manufacturing towns of Alost, Ninove, Termonde, St. Nicolas, and Lokeren, lying together in East Flanders, the most densely populated portion of Belgium. The factories in these towns are not of great size. They manufacture goods of flax, cotton, wool, and mixed stuffs. The most important of these industries are the manufacture of blankets at Termonde, of sewing thread at Alost and Ninove, and the coloured cotton and wool mixed tissues at St. Nicolas.

Alost contains four factories, employing about 2,500 hands, and Ninove nine, on a smaller scale, with 1,000 hands in all. These two towns contain nearly all the factories in Belgium for the manufacture of cotton and linen sewing thread. There are likewise sewing thread factories in West Flanders, near Roulers, but they are not flourishing, owing, it is said, to the greater importation of late of English thread, which is but lightly taxed in Belgium.

The year 1871 was favourable to this manufacture at Alost. From the

month of March the demand was well sustained, and the rise in the price of flax foreshadowing a rise in that of linen thread, increased the demand. This prosperity is, however, due to temporary causes, and manufacturers complain much of the heavy duties which prevent their competing freely with neighbouring countries, as also of that on certain yarns imported from England for manufacturing purposes.

Here, and in many parts of East and West Flanders, a good deal of hand weaving is done at home, and some communes have established industrial schools to encourage the trade, such as those of Ypres, Passchendal, and Becelaire, the two former of which are doing well, but the latter is languishing, owing to the superior popularity of the trade of flax-peeling. These private looms work principally for manufacturers, the quantity sold on the market being quite insignificant.

The "*ateliers d'apprentissage*," or schools where weaving is taught partly at the expense of the State and partly of the commune, were established by government during a period of distress amongst operatives in the flax trade, and have been productive of good results. The pupils are admitted at the age of 12, and receive a practical professional education in different branches of weaving. On leaving the school, if efficient weavers, the pupils receive a certificate. There are between 70 and 80 of these industrial schools, chiefly in West Flanders, all working for manufacturers, who provide the yarn. By means of these schools a constant supply of good weavers is assured to linen manufacturers.

This trade has made great advances in the last two years, the Alost factory having increased the number of its looms from 60 to 100, during that period producing linen tissues of great width and all qualities.

The great demand for these articles during the late war induced a larger supply than could well be disposed of, but the steam factory at Alost is in a flourishing state, paying its hands 2 fr. per day. It may be noted that a daily increasing quantity of jute enters into the composition of these coarse fabrics.

Alost possesses three factories of damask linen, all in good work, and a certain amount is also produced by private hands. Table cloths, napkins, and towels, grey and white, are the principal produce, for the latter of which, during the past year, the demand almost exceeded the power of supply.

Damasked tissues for mattresses are in little demand, being now for the most part replaced by stripped ticking.

In the four large sewing thread factories of Alost, the wages and hours of labour are the same. The largest one employs 1,000 men and boys, and 150 women. The men and boys are divided into five, and the women and girls into three classes.

Children are employed from six and seven years of age and upwards.

During the six summer months work commences at 6 a.m. and finishes at 8 p.m., with an hour's repose at noon, and a quarter of an hour at 8 a.m. and 4 p.m.

During the winter months work commences at 7.30 a.m. and closes at 8 p.m.; with same intervals for repose.

The factory operatives here live wretchedly; their chief food consists of potatoes and dry bread. They inhabit small huts, many of them unfloored, and sleep on sacks filled with straw, with a sort of blanket made of coarse tow for bed-covering. Lodgings, composed of two rooms, can be had at 6 fr. per month. A young single workman, by joining a family, can be lodged and fed for 1 fr. 25 c. (1s to 1s 1d) a day. All mill hands wear blouses and wooden shoes. A spinner can clothe himself at an average expense of 50 fr. a year.

Provisions cost the same as at Ruysbroeck, excepting that potatoes are a trifle cheaper. Butter-milk, costing about 1½d per pint, enters largely into the daily consumption of food.

At Ninove, where there are five mills for spinning sewing thread, the largest employs 400 operatives. Foremen receive per day, 3 fr. 50 c. All other full grown operatives earn from 1 fr. 50 c. to 2 fr. Children are admitted into the mill at eight years of age, and receive at once from 3 to 4 fr. a week, but after four or five years' employment they earn up to 12 and 13 fr. a week, and are considered to be in their prime. Hardly any women are employed here.

All hands work twelve hours a day; for any overtime work an extra quarter of the daily wage is paid.

The ignorance and misery of the operatives is here great. Their lodging and food are the same as at Alost, but Ninove being a small country town, most families possess a plot of ground where vegetables are grown for family consumption.

Termonde contains several factories of both cotton and flaxen goods. The principal trade of the town is in cotton blankets, which employs a large number of hands.

With respect to wages and hours of labour, they are the same as at Alost and Ninove, excepting that at Termonde the operatives are sometimes employed for fifteen hours a day in times of great activity.

In these three places, and in the small factories abounding in this part of Flanders, the proportion of children employed is very large, and has a marked effect both physical and moral on the people.

The position of the operative is perhaps worse here than elsewhere in Belgium. A first-class hand earns on an average about 700 fr., or £28, a year; whilst the smallest sum on which it is calculated a man can exist involves an expenditure of about 500 fr. (£20) a year (1 fr. 25 c. for board and lodging per day, and 50 fr. per annum for clothing). Indeed, the possibility of existence on such wages is only to be explained by the large proportion of children employed, who add to the resources of their families, and also in the country and smaller manufacturing towns, by the possession of a small garden, where vegetables, chiefly turnips and carrots, and sometimes potatoes, are raised.

At Lokeren there is one mill for flax and four for hemp and tow; at Tamise two for hemp and jute. These trades all prospered during 1871, the trade of Italy and Germany with France having been diverted to Belgium for such articles as saddlers' and shoemakers' thread, while the quantities of sack-ing demanded for the army gave an impetus to the coarser yarns.

With the exception of the long-established export trade of Belgian woollen yarns to Scotland, I may state, as the result of my inquiries, that there is little, if any, regular exportation of Belgian textile fabrics to Great Britain for consumption there. Occupiers of factories at Verviers assured me that they never exported a piece of cloth directly to England; and the same story was repeated to me by millowners at Ghent in regard to yarns and tissues both of flax and cotton. One cotton mill at Ghent is said to have exported manufactured goods to Manchester to the amount of £40,000 during 1871, but this was stated to be exceptional, and owing to the special circumstances of that year. I was also informed at Ghent that a certain amount of flax yarn was regularly exported to Scotland, there to be mixed with cotton; and afterwards re-exported to Belgium for making lace.

The reasons for the possible successful competition of Belgian with British textile fabrics must be sought for in the lower rate of wages, the longer hours of labour, and the cheaper railway transport in Belgium as compared with Great Britain.

But, notwithstanding these apparent advantages, it does not appear British manufacturers have anything to fear from their rivals in Belgium.

PRUSSIA.

The Prussian factories are not generally concentrated in districts, one branch here, another there, and a third somewhere else, and so on; but they are situated more or less equally over certain provinces, and no special branch is confined to one special district.

In many of the Prussian industrial centres all branches are equally represented.

Generally I am informed that there is a tendency to diminish the hours of labour to twelve, including two hours for rest, and to raise the rate of wages; but this increase, which is considerable in the case of male factory hands, is small as regards the women, who nevertheless form the greater portion of the hands employed in the spinning and weaving factories in this country.

Girls from 14 to 16 years of age can never be made to work more than ten hours a day. The police come once a month, at least, to examine them and see that all the different provisions of the "gewerbe ordnung" (Industrial Code of 1869) are complied with. Girls under 12 cannot be admitted as factory hands, nor can any girl be employed in a factory until she has completed her schooltime and been confirmed. Certificates to this effect must be furnished to the employer before he can admit any applicant, and must always be attached to the passbook of each child, which passbook the police examine and sign at each monthly visit.

In addition to these monthly visits, quarterly inspections of the factory children are also made by superior officers of police. There is as yet no official supervision for women above sixteen years of age. They are left to make what bargains they choose with their employers, and practically work the same number of hours as the men.

In some few cases these reports enter more into detail; the Breslau report, for instance, says that at the flax spinning factory of Messrs. Gruschwitz & Sons, at Neusalz, the hands work from twelve to thirteen hours a day, women receiving from 6 to 13½ groschens (7¼d to 16d) per day, and the men receiving from 12 to 25 groschens (1s 3d to 2s 6d) per day. These employers provide lodgings, which are let out at reduced rates to the persons employed in their factory.

A factory owner who has kindly given me a good deal of information assures me that, in his experience, so far from production having increased (I mean, of course, in ratio to the numbers employed) since wages have been raised, the contrary is the case. He finds his hands work less willingly and less carefully, are more insubordinate, and refuse to yield the same obedience which they formerly did. They know full well that if they are dismissed from the factory they can immediately find employment elsewhere in the large town on the outskirts of which his works are situated. The result, therefore, is, that for higher wages he gets less work done than before, and if it were not for the improvements which have been invented in machinery, and which more than counter-balance the bad work of his factory hands, he would be carrying on his business at a loss. This gentleman also tells me that his workpeople are becoming more irregular in their attendance, especially on Mondays, and that they often refuse to work overtime in spite of the extra payment which they would receive for it.

Wages paid in Messrs. Gruschwitz & Son's flax spinning mill—Girls, 3s 9½d to 8s; women, 3s 9½d to 8s; men, 7s 6d to 15s 6d.

Great difficulty was experienced in getting statistical information regarding the flax factories in Prussia, and no details given in this report.

AUSTRIA.

Work in the Austrian weaving establishments goes on throughout the

whole year, with the exception of Sundays, the Church festivals, and certain national or local festivals.

The number of working days, therefore, in most manufactories is about 300. It exceeds this average in some, while in others it sinks to 290. The daily hours of work amount to 12 here and there, more especially in summer to 13 in other places, and in winter to 10 or 11.

The rate of wages varies according to the fluctuation of the average market price and the price of provisions in different districts. It adjusts itself further according to the description and sex of the labourer. In the year 1870 the daily wages of a labourer employed in the manufacture of textile fabrics, at their highest average, were as follows :—

	Kreutzers.
Lower and Upper Austria	80 to 1 florin.
Voralberg	65
Tyrol	60
Bohemia (flat, or low, country)	50
Galicia	40 to 45
Other districts	55

Since then there has been everywhere an increase in wages, which amounts to and even exceeds 20 per cent.

With reference to the question of the increase of the produce of the loom in Austrian manufactories, no sufficient information can be given, because it is only latterly that statistical data have been collected on the advancement of industrial products. As far as can be gathered from them, the production of flax manufactures in Austrian establishments during the year 1870 are valued at 5,000,000 florins of Austrian currency.

The manufacture of linen, especially in Bohemia, Silesia, and Moravia, is carried on principally by means of hand looms.

Spinning by machinery is being only very slowly established. The number of machine looms in use amount to 346, of which 294 are in Silesia, 30 in Moravia, and 22 in Tyrol.

In the year 1871 there were about 25,000 joch (one joch equal to about two acres) under flax cultivation in Hungary and Transylvania; in the former country the average yield was 6.65 cwt. seed, and 3.16 cwt. flax per joch, in the latter 3.79 cwt. seed and 3.15 flax.

The following countries are those in which the greatest extent of land was under flax cultivation :—

	Joch.
Zips	3,343
Eisenburg	2,091
Sáros	1,947
Jorda	1,671
Pest	1,486
Arna	1,037
Csongrad	1,027
Trenesin	1,025

In none of the other countries did the extent of land so cultivated exceed 1,000 joch.

The amount of linseed produced in Hungary and Transylvania was 105,668 cwt., and the amount of flax was 30,309 cwt.

As regards textile fabrics it must be remarked that in the northern districts of Hungary and Transylvania a considerable quantity of flax is woven by the peasants in their leisure hours, and that the comparatively small number of

professional weavers is a matter of little import. Their number may be stated at 7,970, but many of them only work in winter.

The number of looms is much greater, as in the above-mentioned districts almost every peasant's house is provided with a loom, from which during the winter the members of the family not only supply their own wants, but also produce fabrics of very fair quality for sale.

The produce of flax in Croatia, Slavonia, and the military frontier, amounts to about 60,000 cwt.

WURTEMBERG.

The manufacture of linen is very ancient in this country, a damask weaving factory and a linen company having been founded by Duke Frederick I., in Urach, as early as 1597. Once the glory of Wurtemberg, it had already, at the commencement of this century, dwindled from its former high position; nor did its decrepitude stop then. The Napoleonic wars and continental system, the competition of England in transatlantic markets, her application of mechanism to flax spinning, above all, the extraordinary development of the cotton industry—nay, even the very whims of modern fashion—all contributed to its decay. The whole of Europe participated in the results produced by the above circumstances, under which England attained and maintained that preponderance against which, with varying effect, the struggle is continued up to the present day. In this peaceful conflict Wurtemberg has played a gallant, though a modest, part; and as long ago as the Munich Exhibition, she had the satisfaction of hearing the judgment that, in the imitation of Irish bleaching, finishing, and preparing for market, the Wurtembergers carried off the palm.

This was a great step towards recovery of lost ground, but it was not made in a day. First among the measures which prepared the regeneration of the linen industry, was the introduction of machine spinning. Up to the year 1840 the yarn was all prepared by hand. After two unsuccessful attempts in earlier years, a mechanical flax-spinning factory was at length successfully established, with the help of Government assistance, in Urach, in the year 1840, employing 4,200 spindles. In this same year was organised a society "for the improvement of flax cultivation and the linen industry." The finest seed was next brought from Riga; premiums were given for the cultivation of the plant; and Government introduced the latest machinery for its preparation.

The second measure, and that which mainly contributed to insure the above award at Munich, was the amelioration of the processes of bleaching; preparing, and finishing up of linen goods for market. This too was the work of the Government which introduced an Irish expert in the trade together with English machines, and established the now celebrated bleaching establishments in Blaubeuren and Heidenheim, equal to the best in Germany in those arts, which if they add but slightly to the worth, increases so much the beauty of linen goods.

Another establishment which has become the property of the State exists at Weissenau, and there is also a very ancient one at Urach, besides many others less important in different parts of the country.

By the year 1861, the number of flax-spinning factories had only advanced to three workings, in all 5,896 spindles. In 1865 arose another factory with 1,752 spindles, and in 1868 a fifth with 1,000 spindles making the total at this latter date 10,944 spindles, or 5,048 more than in 1861.* At the same time the number of hands employed in the spinning of flax, hemp, and tow was 756 including women and children.

In Wurtemberg linen weaving is still at the present day mostly done by

*These statistics include the spinning of hemp and tow.

hand. Until the establishment of the mechanical weaving factories at Blaubeuren in 1858, this was universally the case. Besides the larger manufacturers and dealers, the trade is followed by the so-called "Kaufweber" who either work on their own account for sale in the country markets, or by commission for private persons, or for larger dealers, and themselves employ a certain number of hired weavers usually paid by the piece. The more important dealers both employ hands in factory buildings, and also give out yarn to be spun at home. A decided majority of the weavers work in summer in the fields, and the largest portion of the looms are only in motion some 60 or 80 days per annum (1861). Now, as a loom, to give a man a living, must be worked 280 or 300 days in the year, it was calculated, in 1861, that not above 3,000 master weavers could be said to live by weaving alone. Formerly, the weavers were much in the habit of wandering over the country to effect a sale of their wares, by peddling in which more evil was done against good manners than gain secured by good bargains.

The number of weavers, including those who lived by the trade, and those who only worked at it occasionally, was estimated in 1829 at 29,804; in 1835 at 24,441; in 1852 at 26,000, and in 1861 at 19,507, showing, after some fluctuations, a decrease of over 8,000 persons in thirty years. In the latter year the number of looms was 19,379, 43·1 per cent. of which were calculated to be regularly worked, and 56·9 per cent. only as an auxiliary means of livelihood. The amount produced was estimated at 22,304,040 ells, worth 7,261 000 fl. (about £605,080). The large decrease of numbers after 1850 may in great measure be accounted for by the fact that, at that time, a great number of weavers, seeing the promise of obtaining more ample means of subsistence in that direction, went over to the cotton trade.

Exact statistics of the condition of this branch of industry later than the above do not exist, and German conscientiousness is not easily brought to approximate estimates, every fraction of which cannot be sworn to.

As in the spinning so in the weaving trade, the increase in the number or size of the better kind of establishments has of late years gone steadily on, and though it may be long before the poor weaver has altogether given place to the power-loom, the small end of the wedge is well in. In 1866, forty new looms were added at Blaubeuren and more in 1871. The reports of 1869 and of 1872 also speak of increase in the amount produced in the country. At the end of 1868 a second mechanical weaving establishment arose at Ravensburg, twenty looms being then at work out of eighty which it was proposed to set up. In Laichingen, one of the principal seats of the manufacture of sheets, damask, quilts, &c., there were in 1871, 621 looms (still divided among 254 establishments) all the pattern and broad looms, and twenty of the smaller ones being of Irish construction. Here the employment of bleached yarn seems to be coming more and more into favour. A Laichingen manufacturer informed me that most of the produce of that place found a market in the country, being either too little known or too costly to bear a distant destination; a small portion, however, finds its way to Italy.

The principal wares produced are:—Household linen, unbleached or half-bleached, and, of a very solid description, linen for shirts and pocket handkerchiefs, table linen of good quality, Jacquard damask, packing stuff for sacks, &c., and stiff linen cloth.

SAXONY.

In the spinning factories the time of labour which formerly used to vary from thirteen to fourteen hours a day (deducting the intervals allowed for breakfast, dinner, and tea), has been reduced to twelve hours, especially since

1871. The efforts made by the working men in some places—for instance, in Chemnitz—in the sense of a further reduction have as yet proved ineffectual.

In some factories for the spinning of flax, on the contrary, the time of work has been reduced to ten hours.

In weaving manufactories where machines are used, the time of labour likewise extends now mostly to twelve hours a day. Altogether, where operatives are kept working together, the hours of labour are generally the same in the various industrial establishments of a place, whatever may be the branch of industry to which they belong.

In some few places, *e.g.*, in the neighbourhood of Zittau, the time of labour has been reduced from twelve to ten hours.

The spinning of flax, which is, for the present moment, rather in an unfavourable position, has taken much greater dimensions since the last ten or twelve years; in the year 1861 there were 13,000 spindles—now we may safely assume that there are 36,000.

SWITZERLAND.

Switzerland, in spite of her remote inland position, the conformation of her soil, which presents great obstacles to internal communication, her want of capital, as of most of the first elements of commercial prosperity, has, after a long and severe struggle, become entitled to rank as an important manufacturing State. Her textile fabrics, for instance, penetrate to the most distant quarters of the globe, where they now find as ready a sale as others longer and better known. Her silk manufacturers boldly assert that, especially as regards cheap silks and silk ribbons, they are able at last not only to undersell on the Continent the British producer of similar articles, but even to compete with him in the home markets of Great Britain. In the production of all goods, embroidered whether by machine or by hand, she has completely distanced her Scotch and Saxon competitors, and now has a virtual monopoly of this important branch of industry.

Silk holds the first place, owing as much to the great value as to the enormously increased exportation of the manufactures of this staple. Cotton manufactures are the next in importance to silk. The exports of woollen yarns and manufactures have increased even at a more rapid rate than those of silk and cotton, but the total amount is insignificant, and scarcely deserving of notice.

The exports of linen fabrics is even less than that of woollen as the following figures will show:—Quantity exported in 1860, 296,426lbs.; in 1871, 319,392lbs.; increase, $7\frac{3}{8}$ per cent.; estimated value, £26,928 in 1860, £25,888 in 1871; decrease, $3\frac{1}{2}$ per cent.

Up to the present moment, the average length of the working day throughout Switzerland is twelve hours, exclusive of the time necessarily required for the different meals, and a short rest in the middle of the day. Although the rates of wages in Switzerland have risen rapidly within the last two or three years, they must even now be at least from 40 to 50 per cent. below those actually ruling in England. The exports both of linen and woollen fabrics are so unimportant as not to require any special notice. These two branches of Swiss industry are in a comparatively backward state, and their produce generally of a coarse quality, is mostly consumed in the country itself.

NETHERLANDS.

Labour throughout the Netherlands is comparatively cheap, and wages, notwithstanding the rise which has taken place in some of the large towns, are still considerably below those paid in England.

As a general, indeed almost invariable, rule, the Dutch as well as the foreign employers dispense with any but native labour, except in the case of skilled foremen.

The question of wages has been occupying public attention for some time past, and it is not improbable that before long the position of the working classes may be improved in this respect; directly, through a general advance on the present rate; indirectly, by the lowering of prices through the establishment of co-operative stores, and by the formation of industrial schools, where the workman may have the opportunity of increasing his knowledge, and thereby the productiveness of his labour.

There is a general opinion, not unfrequently shared by the workmen themselves, that the Dutch labourer is not equal in point of skill to the foreign workman—that he is slower at his work and turns it out in a less finished state. Possibly there may be some grounds for this opinion as regards highly skilled and factory hands; but with respect to the ordinary labourer, it is doubtful whether any very marked difference exists.

The system of paying labour in the Netherlands is either by the week, or by the hour, or by the piece; the two latter plans having become very general of late, especially that of paying by the hour, as it is found that the men have an interest in working as long as their employers will permit.

There is no law limiting the hours of labour, or prohibiting children under a certain age from working in the factories. As a general rule, the hours of labour vary from ten to fifteen a day, including intervals for at least two meals.

The variation in the rate of wages is so great in different factories that it would be a difficult matter to strike a very exact average.

Statistics of cotton and woollen manufactures are given, but none regarding flax.

In the larger towns, and in districts where skilled labour is in demand, a good factory hand may be supposed to earn, on an average, from 12s to 15s a week, in other places from 8s to 10s. In no factory, however, could the maximum wage exceed 20s a week (12fl.).

Factory hands are kindly treated by their employers, and although their wages are lower and their hours of labour longer than in England, they will generally be found to be a more contented class than the workmen at home.

Doubtless their claim to higher wages will shortly receive favourable consideration; but, except in the case of children, it is unlikely that the Legislature will interfere in the matter of hours of labour.

PROVINCE OF NORTH OF BRABANT.

Husking (Coarse Linen) and Linen Weaving.—This branch of industry, which in North Brabant provides for the support of so many families, is not in a flourishing state. Everywhere complaints are made of the diminished demand for this article, by which the production decreases.

Foreign competition, especially by Belgian linen, appears to contribute much to this state of affairs; according to the opinion at least of some manufacturers in this province, foreign markets may be regarded as closed with respect to these manufactures by the higher import duties levied in other countries on this article, whilst the corresponding dues with us are so much lower, and therefore facilitate importation.

On the weavers, who with one, two, or at the most three looms work at home with the help of their families, these unfavourable circumstances operate very injuriously. Their number seems to become less every year.

All these weavers work by the piece, and are paid by the metre, from 10 cents (2d) to 25 cents (5d). The price, of course, is regulated according to the greater or less fineness of the linen.

These linen weavers are met with in many districts in this province. Some of them work for manufacturers, some for individuals, but mostly for the latter.

The farmers in this province have very much the practice of cultivating a little flax and having it woven. But this custom also decreases, for the farmers of sandy soils are brought slowly to the conviction that linen acquired in this way costs them very dearly.

A weaver working at home, and clever at his work, appears to be able to earn about 10 cents (2d) per hour. For husking, or coarse linen, and damask weaving, skilful hands are able to stipulate for higher wages.

The condition of the linen factory at Stryp is stationary, at the same time fears are entertained that the future will bring rather a diminution than an increase of production.

SWEDEN.

It is difficult to furnish the approximate rate of wages paid to factory hands in Sweden; it depends mainly on the locality. The further north, the higher the wages.

There is no restriction as to the hours of labour in Swedish factories affecting adults of either sex, but a Royal Statute dated the 18th of June, 1864, prescribes that children who have not completed their twelfth year may not be employed in factories, nor can workmen under eighteen years of age be employed for night work (9 o'clock p.m. to 5 o'clock a.m.). During the current year the hours of labour have been generally reduced, sixty-five hours may be taken to represent the present fixed amount of weekly labour in Swedish factories.

Iönsered's factory, near Gothenburg (flax and hemp spinneries). There is also a weaving house for sail cloth, tent cloth, sack cloth, and linen fabrics. It works 10,000 spindles and 100 power looms, and employs 600 hands.

Flax factories are very few, and the information given in the report for this country relates chiefly to cotton fabrics.

RUSSIA.

The linen industry is the most truly national one.

Flax is a growth especially suited to the soil and climate of the Northern Governments of Russia. The Baltic Provinces and the neighbouring Governments supply the best; the more Northern Governments, such as Viatka, the coarser qualities. Flax is also grown in the Governments bordering on the Black and Azov Seas.

The value of the flax and linseed exported from Russia may be taken on an average as forming rather more than a quarter of the total exports.

Owing to the inferior quality, or preparation of Russian flax, the finer sorts of linens are still brought from abroad, yet the extension of the Russian linen trade has been most considerable, and the exports, notably of the coarser kinds, promise large development.

Linen was manufactured in Russia in the reigns (1645-76) of Michael and Alexis Romanow, who may almost be called the founders of the Russian manufacturing industry. Ever since that time it has made progress; but it was the war in the United States, causing the temporary cessation of the imports of American cotton, which gave the greatest impetus to the Russian linen trade. During this crisis much capital was invested in linen mills (especially in the Kostroma Governments) and peasants in certain districts sowed every available acre with flax, tempted by the high prices which then prevailed.

The statistics of Russian industry are still somewhat rough and imperfect. and there exists considerable divergence between the two most reliable and official sources of information—viz., the statistical work of M. Timirjasew, published in 1869, and the report dated 1870 of the Ministry of Finance. Thus, according to the latter, Russia, including Finland and Poland, had 108 flax and linen mills, employing 27,700 hands, and producing annually goods to the value of £1,432,600; whilst M. Timirjasew states that, in 1867 (the latest date of the return) the number of mills, exclusive of those in Finland and Poland, was 111, with only 18,723 hands, and a production of £1,400,000. It is presumable, however, that the figures of both, even for 1867, were considerably below the truth; for the number of hands employed by only 28 linen mills, represented at the St. Petersburg Exhibition of 1870, and the value of their production, considerably exceeded that given by M. Timirjasew for the whole of Russia three years previously.

The amount of linen cloth manufactured at home by peasants cannot be estimated, and there can be no doubt that, in Russia and Finland, home woven linen forms a very large part of native manufactures.

The flax and linen industries have made most advance in the Jaroslaw and Moscow Governments, whilst in the St. Petersburg Government they do not seem to thrive so well, some mills having of late stopped work.

The linen manufacture is almost entirely in the hands of the Russians; which fact, though accounted for by the connection of this industry with the agricultural interest, is deserving of mention, as so many branches of industry in this country are to a great extent followed by foreigners.

The insufficient machinery employed, indeed its almost total absence in some districts, accounts for the great differences between the productiveness of labour in the different Governments. Jaroslaw is evidently the most advanced as regards the system of linen manufacture, since the value of production per workman in its flax spinning mills is, according to Timirjasew, about £205, in the linen mills £120; whilst the Government of Wladimir is almost the last, for the average production of each workman is only £59 in the spinning, and about £31 in the linen mills.

It is, perhaps, by comparing the number of hands employed with the results obtained that the healthy progress of the Russian manufactures may be tested; and there is no doubt that in this as well as in all other branches of Russian industry, there is at present immense waste of labour, and consequent room for improvement. Still the state of the linen industry in Russia is eminently healthy, and the only limit to its development will be found in the tendency of cotton to supplant linen in many articles of use, and the general consequent torpor of the linen fabrication. In the coarser linen goods Russia should always hold her own.

On the whole, it may be said of the Russian linen manufacture, that it has at length reached a point at which it is equal, so far as regards the middling and coarser qualities, not only to sustain foreign competition at home, but also to take part in foreign markets; the more so, as Russian linen has already the character, unlike the Silesian and many German linens of being remarkably pure and free from mixture of cotton and other materials.

Averse to allow Russia to depend entirely upon foreign manufacture for the principal want of its people, the Imperial Government has protected by duties, which in most cases are virtually prohibitive, the native manufacture. Under this forcing system the cotton industry in this empire has thriven amazingly during the last twenty or thirty years. Much foreign capital has, in consequence, been attracted to this country, and a large number of workmen are giving during the whole year, under the comparative discipline of the mills, a greater amount of useful agricultural pursuits; for not only is the Russian peasant, as a rule, loth to till more land than is absolutely necessary for his

own modest wants, but, owing to the severity of the climate, his agricultural pursuits are suspended during a great portion of the year.

As an incentive to labour is the great desideratum in Russia, it may not be for the present an unmixed evil that the Russian peasant may be forced to give a higher price for the native manufacture than that which, under a free trade system, he would pay for foreign. The more his wants are increased, the more labour he is forced to give to his land or his trade.

It is for the future to justify or condemn the policy of the Imperial Government in thus declining to be led by the liberal commercial principles held as axioms in some countries, who are at a more advanced stage of their development; at present it is only evident that Russia, with her newly-emancipated peasantry, should not be judged by exactly the same rules, as regards the application and productiveness of labour, as the older European nations or even other younger countries, such as the United States of America or the Australasian Colonies, peopled by an energetic and self-reliant population.

As a general rule, in the cotton and linen trades the mills, except in districts where hand-loom spinning and weaving prevail, are on a far larger scale than is usual in England; that is to say, more capital is required, so that a large proportion of the mills are owned by companies. Indeed, it has been found that small undertakings are frequently unsuccessful in Russia. The chief reason for that is the general want of capital amongst the middlemen, which compels the manufacturer to sell his goods at long credits; this system, as the commercial exactitude of the native trader is too frequently lax, results in an accumulation of bad debts, which, to a small industrial, might prove destructive.

Regarding labour, besides Sundays, there are about twenty-four holy days in the year when no work is allowed. Some are Saints' days, others State holidays. In some localities one day is made a holiday, in another a different holy day may be observed; but, on the whole, it may be stated that, for the purpose of industry, there are somewhat less than 290 working days in the year.

In the central Governments many cotton mills work night and day; in this case the hours of labour are naturally shorter than those given above, the hands relieving each other every twelve hours.

There is, perhaps, no country where the hours of labour in every branch of industry are so long as in Russia; thirteen hours per day being the general average, children generally working the same time as men.

As before stated, there is great waste of labour in all the Russian industries. The first and principal cause of this is the want of proper mechanical appliances; but even in the mills where the best and newest machinery is used, it is found necessary to have a larger number of hands than is actually required, and this on account of the irregularity in attendance of the hands. Indeed, it has been found necessary in some cases to limit the gains of the piece workers. For instance, in England a spinner at the mules, with his helps, will attend to about 2,000 spindles; in Russia he is never given more than 1,000 spindles—generally 500. Again, in the weaving mills a Russian rarely has the care of more than two looms, whilst in England a weaver will frequently look after six; had the Russian six looms under his care he would earn about 6s or 7s a-day (he can weave a piece, for which he receives a little more than 1s, at each loom daily). These large earnings would find their way to the "vodki" (brandy) shop, and irregularity of attendance would be the result.

Strikes are by no means unusual in Russia, but there is no general organisation of the labouring classes; strikes when they occur are generally partial.

The Russians, being quick to learn and naturally fine-fingered, show considerable aptitude for factory labour, and they are especially good mechanics;

indeed, in this latter particular they are scarcely surpassed; but they have little pride in their work and are careless, which latter fault often causes great losses in the mills.

English, German, or other foreign foremen are generally employed; in the larger mills the former earn from £300 to £450 per annum, with lodging, fuel, &c.; but this is often not the case: thus one of the largest mills in the St. Petersburg Government—the Golenishtcheff cotton mill—employs exclusively Russians.

In conclusion, it may be stated, that in general the textile industries in Russia have of late years made considerable advance.

The condition of the linen industry is especially healthy; but more care in the preparation of the raw material, and better machinery in the manufacture, are still urgently required, the latter want being felt in all the Russian textile industries.

The price of labour varies enormously in different parts of the Empire and according to circumstances; and it would be extremely difficult, indeed almost impossible, to give a correct general average of the wages paid in each branch of the textile industries of Russia.

Wages are highest in the St. Petersburg district, lowest in the country districts of the centre. In and about St. Petersburg they have risen, on an average, about 15 per cent. within the last three years.

As a market for foreign textile fabrics, Russia will probably, for a long period, continue to be a consumer of the finer descriptions of manufactures from abroad; but it is scarcely likely, unless an entire change of the tariff system should take place, that the lowest priced classes of foreign textile goods will ever, to any large extent, be imported to this country.

THE UNITED STATES OF AMERICA.

The linen industry has not as yet attained to any position of importance in the United States.

The progressive production, according to the census statistics is as follows:—

	1850		1860		1870	
	\$	£	\$	£	\$	£
Flax dressing, }						
Linen goods }	351,808	73,000	165,404	34,400	815,010	142,700
and thread }			655,000	136,400	2,178,775	372,700

The hemp and cordage have remained stationary. The linen manufactures have increased 170 per cent. since 1860, and the jute industry has sprung up since that year. It consumed, in 1870, 5,800 tons of jute; and its value is included in the returns for bagging and hemp dressing.

In 1860 it was remarked that, "the manufacture of linen goods has made little progress in this country. A few mills, chiefly in Massachusetts, make crash and other coarse fabrics; the largest two in the State produced 6,000,000 yards in 1860. Others are extensively engaged in making twines, shoe, and other threads. It is to be regretted that the manufacture of flax has not attained greater magnitude in a country where the raw material is so easily and cheaply grown. Farmers throughout the West have raised the crop simply for the seed, and thrown out the fibre as valueless."

As regards the manufacture of linen goods, I think that it is fair to say that there is no manufacture of fabrics from flax of any importance, excepting "crash" and bagging. An attempt by manufacturers of wealth, a few years ago, to establish the manufacture of the finer linens failed within a short

period. The protected products could not compete with the English goods. The failure was owing in a great degree to a duty, running up to 300 per cent. on fine yarns, which could not be spun in the States; and also to the determination of the imported hands, who soon found out their power, to obtain higher and yet higher wages. The machinery was, of course, also imported.

As to the growth of flax for the linen manufacture, I beg to quote the following remarks, which, although made in 1856, are said to be almost equally applicable at the present time:—

“The cultivation of flax has fallen off, not because it yielded no return for capital and labour, but because other crops yielded a much larger return. In other words, ‘it did not pay,’ and the farmers have ceased to raise it. Flax is a profitable crop to raise in Europe—why is it unprofitable here? Because of the difference in climate and soil; of the want of the skill and knowledge, acquired only by long experience, requisite to its successful cultivation and preparation for the spindle; because of the differences in the character, habits, and wants of the agricultural population, male and female, in the two countries; because cotton is relatively higher there than here, and because of many other reasons apparent to the thoughtful mind.

“I was not long in arriving at the conclusion that, under this state of things, no bleached fine linen goods could be profitably made in this country. The only road which seemed to run out of this difficulty was the one leading to such improvements in the husbandry and preparation of flax for the spindle as would reduce its price. After visiting most of the flax-growing districts in the United States, it appeared evident that the chief causes of the greater cost of producing flax here than abroad, was due to the greater cost of pulling and retting it.

“In many parts of the country, particularly in Ohio, flax is largely sown for the seed only. It is mown in the same manner as grass, and thrown upon the threshing floor, and cattle are driven over it until it is threshed, and the straw, tow and all, is thrown into the roads for their improvement. Latterly, attention has been turned to the saving of this waste product, and a kind of tow has been reclaimed, to some profit, from which coarse goods have been successfully made. It has been thought that fine, or a good quality of white paper, could be made from this material, but the difficulty of bleaching the “shoves,” without destroying the fibre, has been found to be so great that the attempt has been abandoned.

“It is not probable that fine linens can be profitably made from flax grown in this country for a number of years; but there is no doubt but that coarse and cheap goods, for which there is a large demand, if advantage is taken of all the knowledge we now possess of the growth and preparation of flax, can be made with a fair margin of profit.

“After our farmers have been educated, for a generation, in the cultivation and husbandry of flax, and our mechanics and artisans have had the same length of time in which to acquire experience and knowledge relating to its manufacture, the production of finer fabrics can be profitably maintained, and not till then.” . . . “I do not think that in the present condition of this country the European methods of cultivating and husbanding of flax, which are the only ones that can succeed where the finer qualities are sought for, can be profitably introduced.”

As to wages, I can quote the following particulars:—

In Massachusetts they were in 1871-72, on an average—Men, 7s 8½d; women, 3s 8½d; young persons, 3s 4d; children, 2s 1¼d.

The hours of labour in mills were per week, 72 in 1839, 66 in 1849 and 1859. In 1869 they were usually 66, but are now (in 1873) in many cases reduced to 64½, in some mills to 62, and in some hosiery and thread mills to 60. In this last case the day averages 10 hours, and in the other cases there

are five days of 11 hours and a short Saturday. In a few cotton mills, in several woollen mills, and in some other mills, the hours of labour exceed 66 hours, and reach sometimes even to 72 hours a-week.

The flax mills in the United States in 1872 appeared to be as follows :—

	No.	Remarks.
Connecticut ...	2	1 trimmings, 1 cord, &c.
Illinois ...	10	5 tow, 1 bagging.
Indiana ...	16	6 tow, 1 bagging.
Iowa ...	3	1 tow.
Kentucky ...	1	1 flax and hemp bagging.
Maine ...	1	1 crash and table-cloths.
Massachusetts ...	11	3 crash, &c., 1 linen goods, 1 braids.
Michigan ...	1	1 bagging.
Minnesota ...	2	2 tow.
Missouri ...	3	3 bagging.
New Hampshire ...	3	1 linens, 2 burlaps, carpets, &c.
New Jersey* ...	3	1 bagging, 2 cordage and twine.
New York† ...	49	3 linens and yarn, 6 twine, &c.
Ohio ...	45	35 tow, 7 bagging.
Vermont ...	1	1 thread.
Wisconsin ...	2	2 tow.

153

* In New Jersey are also 3 mills making flax, hemp, and jute goods.

† In New York the goods made at 35 of the mills are not known to me.

As regards the future position of the linen industry, it will, I think, be evident from what has already been stated, that there is no immediate prospect of the uprising of an important linen manufacture in the United States.

APPENDIX 2.

Rates of Import Duties levied by Foreign Countries on the Linen Manufactures of the United Kingdom. Compiled from Returns presented to Parliament in 1869.

NOTE.—As these tables are the latest ones of an official nature, published by Parliament, we believe they will be found substantially correct. We shall, however, be obliged, if any of our readers detect errors, that they will be good enough to notify same, with a view to correction in subsequent edition.

LINEN YARNS AND THREAD.

Tariff Classification.	Tariff Rates of Duty.	English Equivalents.
Russia :—	<i>Rbl. cop.</i>	<i>£ s d</i>
Yarns and threads, all kinds . . .	Poud 4 00	Cwt. 1 19 5
Sweden :—	<i>R.d.m öre.</i>	
Linen yarns, undyed or unbleached . . .	Skal. 0 10	„ 0 13 4
„ dyed or bleached . . .	„ 0 20	„ 1 6 7
Sewing thread, unbleached . . .	„ 0 20	„ 1 6 7
„ bleached or dyed . . .	„ 0 30	„ 1 19 11
Norway :—	<i>Spd. sk.</i>	
Yarns and threads, undyed . . .	Pund 0 02	„ 0 7 8
„ dyed and twisted . . .	„ 0 10	„ 1 18 2
Denmark :—	<i>Rd. sk.</i>	
Yarns and threads, undyed . . .	„ 0 03	„ 0 7 2
„ dyed . . .	„ 0 08	„ 0 19 1
Zollverein :—	<i>Thlr. sgr.</i>	
Yarns and threads, single unbl. machine spun	Centr. 0 15	„ 0 1 6½
„ „ hand spun . . .	Free	Free
„ bleached, improved or dyed	„ 1 20	„ 0 5 1
„ twisted, all kinds . . .	„ 4 00	„ 0 12 2
Hamburg :—		
Yarns and threads, all kinds . . .	Free	Free
Bremen :—		
Yarns and thread, stamp or registration duty .	{ 1 grot per 100 } { dollars value }	5d 16 13 4
On first transfer and sale . . .	5 % ad val.	12 0/0 ad val.
On subsequent transfers . . .	1 % ad val.	1 0/0 ad val.
Holland :—	<i>Fl. cts.</i>	
Unbleached yarn . . .	Free	Free
Sewing thread and shoemakers' thread . .	100 Pd. 10 00	Cwt. 0 8 6
Sail yarn . . .	„ 1 00	„ 0 9 10

Tariff Classification.	Tariff Rates of Duty.	English Equivalents.
Belgium :—		
Measuring 20.000 mètres, or less, to the kilo- gramme, or 2½ lbs. avds.	<i>Frs. cts.</i>	<i>£ s d</i>
Not twisted nor dyed	100 Ks. 10 00	Cwt. 0 4 1
Twisted or dyed	" 15 00	" 0 6 1
Measuring more than 20.000 mètres to the kilogramme, or 2½ lbs. avds.		
Not twisted nor dyed	" 20 00	" 0 8 2
Twisted or dyed	" 30 00	" 0 12 2
France :—		
Unbleached of 6,000 mètres or less to the kilogramme, or 2½ lbs. avds.	" 15 00	" 0 6 1
Above 6,000 mètres and under 12,000	" 20 00	" 0 8 2
" 12,000 " " 24,000	" 30 00	" 0 12 2
" 24,000 " " 36,000	" 36 00	" 0 14 8
" 36,000 " " 72,000	" 60 00	" 1 4 5
" 72,000 " and above	" 100 00	" 2 0 8
Bleached or dyed. Of 6,000 mètres or less to the kilogramme	" 20 00	" 0 8 2
Above 6,000 mètres and under 12,000	" 27 00	" 0 11 0
" 12,000 " " 24,000	" 40 00	" 0 16 3
" 24,000 " " 36,000	" 48 00	" 0 19 6
" 36,000 " " 72,000	" 80 00	" 1 12 6
" 72,000 " and above	" 133 00	" 2 14 1
Portugal :—		
Single, unbleached	Kilog. 257	" 2 18 9
" bleached	" 386	" 4 8 3
" dyed	" 515	" 5 17 9
Twisted, unbleached	" 1030	" 11 15 6
" bleached	" 1545	" 17 13 3
" dyed	" 2060	" 23 11 0
Glossed	" 824	" 9 7 5
Spain :—		
Single, unbleached, bleached, half bleached, or dyed	In Spanish Vessels. <i>Esc. Mill.</i>	In Spanish Vessels. <i>£ s d</i>
Twisted of two or more strands, unbleached, bleached, or dyed	100 Ks. 11 000	Cwt. 0 11 2
	" 49 000	" 2 9 10
	In Foreign Vessels.	In Foreign Vessels.
	<i>Esc. Mill.</i>	<i>£ s d</i>
	100 Ks. 11 500	Cwt. 0 11 8
	" 49 500	" 2 10 4
Italy :—		
Single, unbleached, improved or bleached	<i>Live cts.</i> 100 Ks. 11 50	" 0 4 8
" dyed	" 17 10	" 0 7 0
Twist, unbleached, improved or bleached	" 23 10	" 0 9 4
Papal States :—		
Unbleached, single	100 Lbs. 7 50	" 0 8 11
" twisted	" 10 00	" 0 11 11
Bleached or dyed	" 20 00	" 1 3 11

Tariff Classification.	Tariff Rates of Duty.	English Equivalents.
Austria :—	<i>Fl. kr.</i>	<i>£ s d</i>
Handspun, unbleached - - - - -	Free	Free
Machine spun, not bleached, dyed, or twisted -	Centner o 75	Cwt. o 1 6½
Bleached, improved or dyed, but not twisted -	" 2 50	" o 5 1
Twisted - - - - -	" 6 00	" o 12 2
Switzerland :—	<i>Swiss Fr. cts.</i>	
Coarse yarn, for making packing cloth - - -	Quintal o 30	" o o 3
Single, unbleached and undyed - - - - -	" 2 00	" o 1 7½
Bleached or dyed, all kinds - - - - -	" 3 50	" o 2 10½
Greece :—	<i>Dr. lep.</i>	
All yarns (except for embroidery) with 500/o de- duction for reels - - - - -	Oke 1 00	" 1 8 4
" fine for embroidery - - - - -	" 4 00	" 5 13 4
Turkey :—		
All kinds - - - - -	7.20 o/o ad val	7.20 o/o ad val
United States :—		
Carpet yarns not exceeding 8 lea, and valued at 24 cents. or less per lb. - - - - -	30 o/o ad val	30 o/o ad val.
" above 24 cents per lb. - - - - -	35 o/o ad val.	35 o/o ad val.
Flax or linen thread, not otherwise provided for	40 o/o ad val.	40 o/o ad val.

LINEN MANUFACTURES.


Russia :—	<i>Rbl. cop.</i>	<i>£ s d</i>
Tissues, twilled, or with woven patterns, such as table linens and towels, also painted or printed linens - - - - -	Funt o 65	Cwt. 10 16 o
Drills of all kinds - - - - -	" o 45	" 7 10 o
Sailcloth, ticking, druggeting and carpeting, either of all flax or mixed - - - - -	" o 15	" 2 10 o
Coarse linen bags - - - - -	" o 30	" 3 6 8
Batiste and lawn, white linens and linen hdkfs.	30 o/o ad val.	30 o/o ad val.
Sweden :—	<i>R.d.m öre.</i>	
Canvas, sacking, &c. - - - - -	Skälp. o 15	Cwt. o 19 11
Ticking - - - - -	" o 40	" 2 13 2
Batiste, cambric, muslin, linen cloth, and damask	" o 75	" 4 19 9
Sail and tent cloth - - - - -	" o 08	" o 10 8
Other kinds, including diapers and drills -	" o 65	" 4 6 5
Norway :—	<i>Spd. sk.</i>	
Drills and damasks, also handkerchiefs not otherwise provided for - - - - -	Pund o 16	" 3 1 o
Close woven tissues weighing 11 lods or more per square ell (6,0504 per 4¼ square feet) bleached or not - - - - -	" o 02	" o 7 8
Unbleached - - - - -	" o 04	" o 15 3
Dyed, of one colour, or bleached - - - - -	" o 08	" 1 10 6
Do., several colours, not printed - - - - -	" o 12	" 2 5 6
Printed - - - - -	" o 20	" 3 16 4

Tariff Classification.	Tariff Rates of Duty.	English Equivalents.
Denmark :—	<i>Rd. sk.</i>	<i>£ s d</i>
Unbleached tissues, containing less than 24 threads to the square $\frac{1}{2}$ inch, or weighing 44 quints. (3 $\frac{3}{4}$ lbs. avds.) or above to square ell 24 $\frac{1}{4}$ inches - - - - -	Pund 0 02	Cwt. 0 4 9
Damask, drills, &c. - - - - -	„ 0 20	„ 2 7 9
Undyed plain tissues - - - - -	„ 0 12	„ 1 8 7
Zollverein :—	<i>Thlr. sgr.</i>	
Unbleached linen, twilling, or drilling - -	Centnr. 4 00	„ 0 12 2
Bleached, printed, or dyed, or otherwise dressed; table, bed linen and towelling unbleached, bleached or made up - -	„ 10 00	„ 1 10 6
Batiste and lawn - - - - -	„ 10 00	„ 1 10 6
Hamburg :—		
Atlas drill, batiste, cambric, lawn, damask, ticking, drill, towelling, Russia duck, shirts, handkerchiefs, &c. - - - - -	Free	Free
Other kinds - - - - -	$\frac{1}{2}$ % <i>ad val.</i>	$\frac{1}{2}$ % <i>ad val.</i>
Bremen :—		
Manufactures of all kinds : Stamp or registration duty - - - - -	{ 1 grot per 100 } { dollars value }	$\frac{5}{16}$ d $\frac{1}{2}$ £ 16 13 4
Duty on transfer or sale : On first transfer or sale - - - - -	$\frac{5}{12}$ % <i>ad val.</i>	$\frac{5}{12}$ % <i>ad val.</i>
On subsequent transfers - - - - -	$\frac{1}{6}$ % <i>ad val.</i>	$\frac{1}{6}$ % <i>ad val.</i>
Holland :—	<i>Fl. cts.</i>	
Sailcloth - - - - -	Roll 0 30	Roll 0 0 6
All other manufactures - - - - -	5 % <i>ad val.</i>	5 % <i>ad val.</i>
Belgium :—		
Manufactures of all kinds (except lace) - -	10 % <i>ad val.</i>	10 % <i>ad val.</i>
France :—		
Tissues of linen, plain linens and diapers, having in the warp in the space of 5 millimètres (1-5th of an inch) :—		
Unbleached :	<i>Frs. cts.</i>	
5 threads or less - - - - -	100 Kls. 5 00	Cwt. 0 2 0 $\frac{1}{2}$
6, 7, and 8 threads - - - - -	„ 28 00	„ 0 11 5
9, 10, and 11 threads - - - - -	„ 55 00	„ 1 2 4
12 threads - - - - -	„ 65 00	„ 1 6 5
13 and 14 threads - - - - -	„ 90 00	„ 1 16 7
15, 16, and 17 threads - - - - -	„ 115 00	„ 2 6 9
18, 19, and 20 threads - - - - -	„ 170 00	„ 3 9 1
21, 22, and 23 threads - - - - -	„ 260 00	„ 5 5 8
24 threads and above - - - - -	„ 300 00	„ 6 1 11
Bleached, dyed, or printed :		
8 threads or less - - - - -	„ 38 00	„ 0 15 5
9, 10, and 11 threads - - - - -	„ 70 00	„ 1 8 5
12 threads - - - - -	„ 95 00	„ 1 18 7
13 and 14 threads - - - - -	„ 120 00	„ 2 8 10
15, 16, and 17 threads - - - - -	„ 155 00	„ 3 3 0
18, 19, and 20 threads - - - - -	„ 230 00	„ 4 13 6

Tariff Classification.	Tariff Rates of Duty.	English Equivalents.
FRANCE—Tissues of Linen, &c.—continued.		
21, 22, and 23 threads - - - -	100 Ks. 350 00	<i>Fr. cts.</i> Cwt. 7 2 3
24 threads and above - - - -	" 400 00	" 8 2 7
Drills, plain or figured, unbleached, bleached, dyed, or printed - - - -	} 160/o ad val.	} 16 o/o ad val.
Damasks - - - -		
Cambrics and lawns - - - -	} Same duty as on plain linens	
Handkerchiefs, bordered, not embroidered - -	} 10 o/o ad val.	} 10 o/o ad val.
" embroidered - - - -		
Drill or damask for clothing - - - -		
Other linen - - - -		
<i>Note.</i> —Unbleached linen and unions are admitted free when temporarily sent to be printed or dyed for re-exportation.		
Portugal:—		
Packing, and other coarse cloth - - - -	Kilog. 72	<i>Reis.</i> Cwt. 0 16 6
Sailcloth, bleached or not - - - -	" 154	" 1 15 1
Holland - - - -	" 257	" 2 18 9
Unbleached linen - - - -	" 463	" 5 5 11
Bleached - - - -	" 566	" 6 9 5
Damasks - - - -	" 772	" 8 16 6
	In Spanish Vessels.	Spanish Vessels
	<i>Esc. mill.</i>	
	Kilog. 0 500	Cwt. 2 10 10
	" 1 000	" 5 1 8
	" 1 700	" 8 12 9
	" 0 800	" 4 1 4
	Foreign Vessels.	Foreign Vessels.
	<i>Esc. mill.</i>	
	Kilog. 0 505	Cwt. 2 11 4
	" 1 005	" 5 2 2
	" 1 705	" 8 13 3
	" 0 805	" 4 1 9
Spain:—		
Tissues plain, up to 10 threads inclusive in the square of six millimètres - - - -	} Foreign Vessels.	} Foreign Vessels.
" " 11 to 24 threads - - - -		
" " 25 threads and over - - - -		
Tissues, twilled or figured - - - -		
Italy:—		
Tissues of Pure Linen:—		
Of less than 6 threads in the warp in the space of 5 millimètres (1-5th of an inch):	<i>Lire cts.</i>	
Unbleached or bleached - - - -	100 Ks. 23 10	" 0 9 4
Dyed or made of dyed threads - - - -	" 38 00	" 0 15 5
Of 6 threads or more in the space of 5 millimètres:		
Unbleached, bleached, or half-bleached - -	" 57 75	" 1 3 6
Dyed or made of dyed threads - - - -	" 90 00	" 1 16 7
Printed - - - -	" 115 00	" 2 6 9
Papal States:—		
Coarse unbleached cloth - - - -	100 Lib. 17 90	" 1 1 4
Linen cloth dyed, or in any way dressed - -	" 32 25	" 1 18 6
Tissues of linen, white or grey, plain or worked, or woven in colours - - - -	" 53 75	" 3 4 3

Tariff Classification.	Tariff Rates of Duty.	English Equivalents.
Austria :—	<i>Fl. kr.</i>	<i>£ s d</i>
Linen cloth bleached, dyed, or printed, up to 50 warp threads, per Vienna inch - - -	Centner to 00	Cwt. 1 0 4
Batiste, lawn, gauze, and other open woven wares (with certain exceptions) - - -	„ 60 00	„ 6 1 11
Switzerland :—		
Stuffs and ticking, bleached, dyed, dressed, or printed, batiste, lawn, and handkerchiefs, without embroidery - - - - -	Swiss <i>Frs. cts.</i> quintal 8 00	„ 0 6 6
Common unbleached packing cloth, not exceeding 25 threads in warp and wefts in space of 1 Swiss inch (1.39 sq. inch) - -	„ 0 75	„ 0 0 7
Greece :—	<i>Dr. lep.</i>	
Batiste of all kinds - - - - -	Oke 8 00	„ 11 6 8
Drills, ducks, ravenducks, linen cloth for sailors, &c. - - - - -	„ 0 80	„ 1 2 8
Cloth, of all kinds, for shirts, sheets, tablecloths, cloths and other tissues for dresses, pure or mixed with cotton - - - - -	„ 1 06	„ 2 5 4
Handkerchiefs, common - - - - -	„ 1 50	„ 2 2 6
„ fine (batiste) plain - - - - -	„ 9 00	„ 12 15 0
„ head - - - - -	„ 3 00	„ 4 5 0
Turkey :—	<i>Piast. asp.</i>	
Linen, brown or white, with coloured stripes, 25 to 27 inches wide - - - - -	Yard 0 94	Yard 0 0 2
Irish linen cloth and sail-cloth - - - -	7.20 % <i>ad val.</i>	7.20 % <i>ad val.</i>
Ravenduck, 25 to 27 inches wide, 36 to 40 yards	Piece 7 88	Piece 0 1 5
United States :—		
Canvas, black, woven, or made in forms or patterns of such size and shape exclusively for buttons, shoes, or bootees - - -	10 % <i>ad val.</i>	10 % <i>ad val.</i>
Brown and bleached linens, ducks, canvas, diapers, crash huckaback, handkerchiefs, lawns, or other manufactures not otherwise specified, or which flax, hemp, or jute is the chief component material :		
Valued at 30 cents or under per square yard - - - - -	35 % <i>ad val.</i>	35 % <i>ad val.</i>
„ at over 30 cents per square yard - -	40 % <i>ad val.</i>	40 % <i>ad val.</i>
Russia and sheetings - - - - -	35 % <i>ad val.</i>	35 % <i>ad val.</i>
Ravenduck and sail-cloth - - - - -	30 % <i>ad val.</i>	30 % <i>ad val.</i>
Bagging or other similar material composed wholly or in part of hemp, jute, or flax :	<i>Doll. cts.</i>	
Valued at less than 10 cents per square yard -	Lb. 0 03	Cwt. 0 13 10
„ above 10 cents per square yard - -	„ 0 04	„ 0 18 5
All other manufactures of linen, flax, hemp, or jute, pure or mixed with cotton, of which linen is the chief component material - -	40 % <i>ad val.</i>	40 % <i>ad val.</i>

THE
IRISH LINEN TRADE
DIRECTORY.

 *In the general Alphabetical List of Names, a fuller description of many Firms will be found.*

The names of Scutch-mill proprietors are not included in the general list.

THE IRISH LINEN TRADE DIRECTORY.

SCUTCHING MILLS—PROPRIETORS OF.

The following is a List of Names of the Proprietors of Scutch Mills in Ireland, so far as could be collected for present edition. With a view to make the next list more complete, correspondents will much oblige by furnishing names of those omitted, and also by noting any corrections required to be made in this.

- | | |
|---|---|
| Abbot, Francis, Legacurry, Lisburn. | Cambell, Robert, Tullyown, Strabane. |
| Adams, John C., Milltown, Monaghan. | Campbell, — near Downpatrick. |
| Allen, Edward, Drumnabruze, Lurgan. | Campbell, Wm., Tarnlagh, Limavady. |
| Allen George, near Comber. | Carbrey, Wm. Tullynure, Cookstown. |
| Anderson, George, Tullywigan, Cookstown. | Cargill, Wilson, near Glassloch. |
| Anderson, J., Drumacniver, Madden, Co. Armagh. | Carmichael, D. & W., Millisle, Co. Down. |
| Anderson, J., Ballyloughan, Richhill. | Carraher, Arthur, Cremarten, Castleblayney. |
| Andrews, W., Templemoyle, Dungiven. | Carson, C. L., Lissaginnny, Clontibret. |
| Annesley, Geo., Drumenagh Flax Mill, Portadown. | Carson, Thos., Ballaghy, Armagh. |
| Armour, John, Top, Ballymoney. | Casey, Richard, Dunmore, Cookstown. |
| Baird, Wm., Castelfin, Strabane. | Caughey, — Ballywalter, near Downpatrick. |
| Baird, Captain, Tullyard, Strabane. | Chambre, J. Stewartstown. |
| Ballagh, John, Moys, Castleshane. | Charles, R., Knockalery, Cookstown. |
| Barefoot, H., Killyleasky, Cookstown. | Chesnut, J., Dungorberry, Ballymoney. |
| Baron, Newel, Q.C., J.P., King Hill, Rathfriland. | Clarke, Wm., Ballymoran, Armagh. |
| Basken, Moses, Ballynamullen, Omagh. | Clement, R. S., Blackforth, Fintona. |
| Baxter, Jas. B., Breagh, Taitmayham, Portadown. | Cokely, Dan, Rosscarbery. |
| Beckett, John, Dervock, Ballymoney. | Coleman, Alex., Killigan, Cloughmills, |
| Bell, J., Coagh. | Colhonn, Robt., Carrick, Strabane. |
| Bennett, John, Solitude, Ballygowan. | Connolly, Thos., Shantonagh, Castleblayney. |
| Bennett, T. Clonakilty. | Cook, Andrew, Dungiven. |
| Best, James & Sons, Armagh. | Corbitt, R., J.P., Lisnasreay House, Rathfriland. |
| Birch, Miss, Lurganearly, Castleblayney. | Corrigan, Samuel, Fairlawn, Moy. |
| Black, Richard, Corkhill, Cookstown. | Cotter, Joseph, Dunmanway. |
| Black, J. B., Broughshane, Ballymena. | Cotton, Geo., Dunnard, Cookstown. |
| Boyd, John, Kirkcubbin. | Coulter, John, Killinchy, Co. Down. |
| Boyd, Wm., Ballywilliam, Comber. | Cowan, John, Annahavill, Cookstown. |
| Boyland, Chas., Batteagh, Macosquin. | Cowan, W., Drumrankin, Cullybackey. |
| Boyle, Alex., Drumsurn, Limavady. | Cox, James, Artigarven, Strabane. |
| Boys, James, Moneyamore. | Coyle, James H., Coleraine. |
| Brady, H., Millquarter, Toome Bridge. | Craig, Robt., Ballymarlow, Ballymena. |
| Bratton, John, Garmullen, Fintona. | Cramsie, Alex., Coldah, Ballymoney. |
| Brown, John, Knockalery, Cookstown. | Crawford, Chas., Aughafatton, Broughshane. |
| Bryan, J. J., Killyneill, Silverstream. | Crawford, Jas., Knockmughy, Omagh. |
| Buchanan, Wm., Raphoe, Strabane. | Crawford, Joseph, Straw, Dungiven. |
| Burnett, Robert, Ahoghill. | |

- Cromey, Mrs., Ballynamagne, Rathfriland.
 Crieve Scutch Mills, Ballybay.
 Crooks, Wm., Money more.
 Crouthers, S., Ballyloughan, Richhill.
 Cunningham, D., Dyan Mills, Caledon.
 Cunningham, J., Dullehan, Dromore.
 Curry James, Bushmills.
 Davison, A., Mill Brook, Randalstown.
 Delayney, Patrick, Hilltown.
 Devenny, Robert, Strabane.
 Dickson, A., Tulnacross, Cookstown.
 Dinsmore, J. D., Killigan, Cloughmills, Belfast.
 Dinsmore, Wm., Dunley, near Belfast.
 Donnelly, Chas., Castleroddy, Omagh.
 Donnelly, John, Mullaghmore, Omagh.
 Dougan, Samuel, Mohan, Armagh.
 Dougan, Wm., Drummully, Emyvale.
 Douglas, Henry, Glenburn, Tassagh, Armagh.
 Douglas, J. S., Rosebrook, Dungiven.
 Dugan, James, Ardma, Downhill.
 Dunbar, J. M., Ballina.
 Duncan, Andrew, Gardum, Dromore.
 Co. Tyrone.
 Duncan, J., Ballypatrick, Ballycastle.
 Dunlop, John, Rasharkin.
 Dunlop, Joseph, Killigan, Cloughmills, Belfast.
 Dunlop, Mrs., Dernaghey, Lisburn.
 Eaton, John, Killyrea, Clough.
 Eccles, Samuel, Kildress, Cookstown.
 Eakin, Charles, Glennan, Glasslough.
 Evans, David, Ballynabuoy, Cullan.
 Ewart, Captain, Donaghadee.
 Ewart, F., near Millisle, Co. Down.
 Farrel, G., Corleackagh, Castleblayney.
 Feagan, T., Drumlough, Rathfriland.
 Ferguson, R., near Newtownards.
 Finlay, Robert, Tullyrap, Strabane.
 Finlay, J., Killinchy.
 Fitzherbret, Thomas R., Shantonagh, Castleblayney.
 Fletcher, Mr., Glascar, Rathfriland.
 Frazer, John, Legacurry, Lisburn.
 Gage, W. C., Ballykelly.
 Galway, Mrs., Millmount, Dundonald.
 Gardner, Robert, Lisnoe, Lisburn.
 Gardner, William, Ravarnette, Lisburn.
 Gault, John, Harryville, Ballymena.
 Given, Wm., Terrydremout, Limavady.
 Glasgow, Mrs., Rasharkin.
 Glass, Hugh, Clady, Armagh.
 Glenn, Robert, Tullyard, Strabane.
 Gormley, R., Ballymagorry, Strabane.
 Grahames, Jas., Ballyboggy, Bushmills.
 Grehames, M., Burren, Ballymadigen, Garvagh.
 Gray, Gordon, Clady, Armagh.
 Gray, James, Bryandrum, Markethill.
 Gregg, John, Tellydinnell, Raphoe, Strabane.
 Greer, Mrs., Annarea, Richhill.
 Gribben, A., Aughafatton, Broughshane.
 Haire, James, Rosskey, Monaghan.
 Hall, H. T., Hilltown.
 Hamilton, Jas., Mosside, Ballymoney.
 Hamilton, M., Trenta, Strabane.
 Hamilton, Mrs., Drumbeg, Strabane.
 Hamilton, R., Skerry, Broughshane.
 Hanna, Andrew, Cloughmills.
 Hanna, — Strangford.
 Hanna T., Ballynamagne, Rathfriland.
 Harkness, Wm., Tintagh, Cookstown.
 Harper, John, Caddy, Randalstown.
 Harpur, Joseph, Greenhill, Raphoe, Strabane.
 Harris, A., Tullyharnet, Castleblayney.
 Harrison, W., Drumleek, Castleblayney.
 Hart, S., near Ballymoney.
 Heney, Patrick, Tintagh, Cookstown.
 Holland, Wm., Ballylntagh, Coleraine.
 Hooey, Thos., Ballyloughan, Richhill.
 Hood, John, Cloughmills.
 Hunter, A., Corratduty, Castleblayney.
 Hunter, John, Chattam Hall, Armoey, Ballymoney.
 Hunter, John, Straidarren, Feeny.
 Hunter, Leslie, Mullahinch, Aghadowey, Ballymoney.
 Hutchinson, W. F., Stranocum, Ballymoney.
 Hntchinson, William, Markethill.
 Hyde, Robert, Cranagill, Loughgall.
 Irwin, James, Drummond, Limavady.
 Jamison, Robt., Quiglough, Ballinode.
 Johnston, G. P., Ballymacash, Lisburn.
 Johnston, Wm., Dunded, Cookstown.
 Jolly, W. J., Ballyboy, Ballycastle.
 Kenedy, John, Lackan, Rathfriland.
 Kennedy, H., Moneynick, Randalstown.
 Kennedy, Samuel, Caheney, Kilrea.
 Kerr, Jas., Creggan, Randalstown.
 Kerr Robert, Articlave, Garvagh.
 Kidd, Mrs., Tassagh, Armagh.
 Kilgore, Wm., Ballymahoy, Strabane.
 Killen, John, The Green, Strabane.
 Killen, William, Flushtown, Strabane.
 Kilpatrick, John, Clady, Armagh.
 Kilpatrick, Wm., Cullybackey.
 King, Michael, Dungiven.

- Kinison, W., Doneymanagh, Strabane.
 Kinkead, Wm., Sloyback, Strabane.
 Kircubbin Coy., Limited, Kircubbin, Co. Down.
 Kirkpatrick, Saml., Balnahone, Pharis, Ballymoney.
 Kirkpatrick, Wm., Drumrankin, Cully-backey.
 Kyle, J., Tullynahinan, Portglenone.
 Lamont, John, Granshaw, Comber.
 Lavelle, James, Corfinlough, Ballibay.
 Lavender, A., Knockboy, Ballymena.
 Leckey, James, Dromore, Strabane.
 Leckey, Robert, Carrick, Strabane.
 Lees, John, Ringsend, Garvagh.
 Lepper, Jas., Wellbrook, Cookstown.
 Lindsay, The Misses, Ballyaughian, Hilltown.
 Lorden, John, Enniskean.
 Lougherry, W., Walkmills, Limavady.
 Lowry, Henry, Drumcaw, Strabane.
 Lowry, H., Castlemellon, Strabane.
 Lowry, — Kilmore, near Crossgar.
 Lowry, Mrs., Ballymacconnell, Bangor.
 Lynd, John, Killure, Coleraine.
 Lyons, Mrs., Tullyquilly, Rathfriland.
 Macauley, John, Bushmills.
 Magaw, J., Moneymore.
 Magill, Patrick, Cullane, Pharis, Ballymoney.
 Mallon, James, Drumart, Loughgall.
 Marks, W. J., Carnearney, Ahoghills.
 Marshall, Roger, Tullyglush, Kane, Middletown.
 Martin, Israel, Ballyhenry, Limavady.
 Marten, Samuel, Milltown, Strabane.
 Martin, John, Hilltown.
 Martin, J., near Killyleagh.
 Martin, Mrs., Dunmore, Cookstown.
 Martin, Samuel, Clady, Armagh.
 Martin, Wm., Laughan, Coleraine.
 Millar, — near Portaferry.
 Millar, Wm., Galvin, Dungiven.
 Millar, Alexander, Killycan, Dungiven.
 Miller, T., Back, Cookstown.
 Minnis, Michael, Rosscarbery.
 Montgomery, J., Tamlat, Monaghan.
 Mooney, John, Macosquin.
 Moore, A., Broughshane, Ballymena.
 Moore, J., Mullaghduff, Armoy, Ballymoney.
 Moore, L., Dervock, Ballymoney.
 Moore, Samuel, Laughan, Coleraine.
 Moore, William, Loughness, Strabane.
 Moore, W. J., Adverness, Macosquin.
 Morris, James, Leap.
 Morrow, James, Windsor Hill, Rathfriland.
 Morrow, Robert, Legacurry, Lisburn.
 Moses, David, Leskinore, Fintona.
 Muldoon, Mrs., Gortreragh, Cookstown.
 Munford, J., Broughshane, Ballymena.
 M'Alister, J., Beragh.
 M'Alister, R., Beragh.
 M'Alister, J., Dunsernick, Ballintra.
 M'Alister, R., Bushmills.
 M'Alister, Robert, Clare, Cookstown.
 M'Alister, S. & J., Tirkeeran Mills, Garvagh.
 M'Allister, Alex., Tirkeeran, Garvagh.
 M'Aughey, Saml., Broughshane, Ballymena.
 M'Beth, Robt., Ballendrait, Strabane.
 M'Birney, A., Culloville, Castleblayney.
 M'Bride, William, J.P., Moneyslone House, Rathfriland.
 M'Camon, Andrew, Nutgrove, Seaford.
 M'Caw, John, Drumnefavey, Stranocum, Ballymoney.
 M'Can, T., Killycogan, Portglenone.
 M'Cauley, John, Bushmills.
 M'Cleery, R., Magherahand, Strabane.
 M'Clelland, J., Ballymore, Limavady.
 M'Closkey, J., J.P., Keeley, Aghadoey, Ballymoney.
 M'Clure, D., Derryhullough, Randals-town.
 M'Clure, J., Ballycregagh, Stranocum, Ballymoney.
 M'Conaghy, Dr., Tullydonnell, Raphoe Strabane.
 M'Cormick, T., Brookend, Cookstown.
 M'Crea, Robert, Lisan, Cookstown.
 M'Croberts, L., Rideman, near Crossgar.
 M'Crum, James, Drummond, Madden, Co. Armagh.
 M'Culloch, T., Derryvally, Ballibay.
 M'Cullough, John, Mountnorris.
 M'Cullough, John, Granshaw, Comber.
 M'Dowell, W.J., Granshaw, Comber.
 M'Fadden, J., Ballywollen, Garvagh.
 M'Fetridge, Thos., Brookfield, Aghadoey, Ballymoney.
 M'Ginnis, Michael, Shanmullagh, Clontibret.
 M'Grath, Mr., Tynan.
 M'Guile, Robert, Warren, Ballycastle.
 M'Ilhatten, A., Kingariff, Stranocum, Ballymoney.
 M'Ilhone, Mrs., Lisan, Cookstown.
 M'Ilwaine, William, Dundonald.

- M'Kane, John, Raheney, Fintona.
 M'Kay, junr., Geo. Portinaghy, Glass-
 lough.
 M'Kay, Joseph, Drumsurn, Limavady.
 M'Kean, Henry, Benburb, Co. Armagh.
 M'Kee, Wm., Tullycarey, Greyabbey.
 M'Keever, Hugh, Cloughmills.
 M'Kibbin, Samuel, near Comber.
 M'Kindry, Edward, Lurgan More,
 Castleblayney.
 M'Kinlay, William, Rasharkin.
 M'Kirner, Miss, Rasharkin.
 M'Losky, J., Feeggarron, Cookstown.
 M'Laughlin, Mr., Aughadarra, Dro-
 more, Co. Tyrone.
 M'Mahon, Thomas, Tandragee.
 M'Math, Andrew, Thornford House,
 Castleblayney.
 M'Mordie, — near Crossgar.
 M'Morran, George, Comber.
 M'Neill, John, Buckna, Broughshane.
 M'Reynolds, P., Altmover, Dungiven.
 M'Reynolds, Thomas, King's Mill,
 Cookstown.
 Neill, George, Ballybreagh, Richhill.
 Nery, Robt., Little Bridge, Cookstown.
 Newell, Wm., Derriaghy, Lisburn.
 Nevin, James, Carnglass, Portrush.
 Nevin, James, Walkmill, Bushmills.
 Nevin, J., Greenshields, Ballymoney.
 Nugent, James, Edagold, Fintona.
 Nugent, Thos., Castleroddy, Omagh.
 Oliver, Joseph, Readuff, Castleblayney.
 O'Rourk, B., Inniskee, Dundalk.
 Orr, Blakely, Ballystockard.
 Osborne, Wm., Altmover, Dungiven.
 Parker, J., Kells Water, Ballymena.
 Parks, Mrs., Walk Mill, Strabane.
 Parks, Joseph, Ballinderry.
 Patten, Wm., Gortleck, Strabane.
 Patterson, William, Killinchy.
 Perkins, T. C., Ballina.
 Perry, Joseph, near Downpatrick.
 Porter, A., Kate's Bridge, Rathfriland.
 Price, John, Ballinlea, Moyarget,
 Ballymoney.
 Priestly, Mr., Saintfield.
 Quin, James, Downhill.
 Quin, James, Douglass, Strabane.
 Rankin, Samuel, Kustican, Strabane.
 Rea, Mrs., Ballyholly, Strabane.
 Reed, Thomas, Lemreulla, Ballinode.
 Reed, Thomas, Teravety, Scotstown.
 Redmond, John, Walter, Sandymount,
 Richhill.
 Reade, R., near Ballygowan.
 Robb & Reade, Ballygowan.
 Robertson, J., Ballyteagh, Middletown.
 Robinson, Mr., Craigs, Cullybackey.
 Robinson, Thomas, Killinchy.
 Ross, David, Jonagh, Fintona.
 Ross, David, Raheney, Fintona.
 Roulston, A., Castletown, Strabane.
 Roulston, Robert, Ardagh, Strabane.
 Ruddell, John, Ballybay Flax Mill,
 Portadown.
 Russell, James, Killen, Strabane.
 Rutherford, Wm., near Cookstown.
 Sayers, Hugh, Cloughmills.
 Scott, Robert, Knockmaghy, Omagh.
 Shaw, Fred, near Killinchy.
 Shaw, James, Buckna, Broughshane.
 Silcock, James, near Crossgar.
 Simpson, George, Moyasick, Ahoghill.
 Simpson, Robt., Kingsmill, Cookstown.
 Sinclair, Mr., Spamount, Cookstown.
 Sinton, Thomas, Hamiltonbawn, Co.
 Armagh.
 Small, James, Straid, Ahoghill.
 Smith, Hugh, Drummond, Madden,
 Co. Armagh.
 Smith, Thomas, Bolea, Limavady.
 Smyth, E., Clonakilty.
 Smyth, James, Ballyrashane, Coleraine.
 Smyth, William, Altrest, Strabane.
 Smyth, William, Drumenie, Strabane.
 Smyth, Wm., Kirkistown, Coleraine.
 Spamount Spinning Co., Spamount,
 Castlederg.
 Stewart, G., Galvin, Dungiven.
 Stewart, Hugh, Cloughmills.
 Stewart, William, Boghill, Coleraine.
 Stewart, Wm., Shankey, Cookstown.
 Stinton, John, Dunman, Cookstown.
 Stockdale, George, Downpatrick.
 Story, Robert, Coagh.
 Strahan, Thomas, Corby, Clough.
 Strahan, Thomas, Clinty, Ballymena.
 Stuart, John, Cloughmills.
 Stuart, Wm., Ballyrashane, Coleraine.
 Swanzy, Hugh, Castleblayney.
 Thomson, George, Moycraig, Mosside,
 Ballymoney.
 Thompson, S., Ballymadigan, Garvagh.
 Thompson, W., Buckna, Broughshane.
 Todd, William, Fryfin, Castlederg.
 Toner, Thos., Rosebrook, Dungiven.
 Waddell, Robert, J.P., Magheralin.
 Wallace, H., J.P., Morenis, Garvagh.
 Wallace, John, Crockindolg, Garvagh.
 Wallace, Wm., New Mills, Portlengone.
 Wallace, Wm., Forth, Limavady.

- | | |
|--|---|
| Walsh, Alexander, Fintona. | Wilson, James, Shanevagh, Dromore,
Co. Tyrone. |
| Warden, James, Cunningham, Ards. | Wilson, Mrs., Meath Park, Coleraine. |
| Warnock, Thomas, Corclea, Keady. | Wilson, Mrs. Maria, Collins, Aghadoey,
Ballymoney. |
| Warnock, Thos., Laughan, Coleraine. | Wilson, Thos., Drummond, Madden,
Co. Armagh. |
| Waterson, Jas., Ballynagappog, Rath-
friland. | Wilson, Thos., Derrycheer, Dungiven. |
| Watson, Henry, Rock, Cookstown. | Wilson, Wm., Ardbrim, Rathfriland. |
| Webb, Bros., Randalstown. | Wilsom, William, Drumaney, Raphoe,
Strabane. |
| Weir, Alex., Straid, Ahoghill. | Woodburn, Wm., Gortfad, Garvagh. |
| White, Geo., Thorn Hill, Strabane. | Woods, Wm., Rathfriland. |
| White, Robert, Kenbilly, Ballymena. | Wright, Thos., Drumilly, Loughgall,
Co. Armagh. |
| Wiggins, H., Eglinton, Derry. | Young, John, Cavanalee, Strabane. |
| Wightman, J., Springmount, Clough-
mills. | |
| Wilson, Charles, Milltown, Raphoe,
Strabane. | |
| Wilson, James, Ballyaggon, Garvagh. | |

Wholesale Flaxseed Merchants and Agents.

- | | |
|--|---|
| Andrews, S., Victoria st, Belfast. | Lytle, John, & Sons, Victoria street,
Belfast. |
| Beattie, James, Linen Hall, Belfast. | Meadley, Thomas, Corporation street,
Belfast. |
| Bell, Richard, & Co., Linen Hall, Belfast. | Mullan, William, Victoria st, Belfast. |
| Boyd, Robert, Armagh. | Munster, Alfred, Victoria st, Belfast. |
| Brown, Corbitt, & Co., Victoria st,
Belfast. | M'Blain & Co., Newry. |
| Dickson, Thomas A., Dungannon. | M'Causland, Samuel, Victoria street,
Belfast. |
| Faren, Joseph, & Sons, Waring street,
Belfast. | Patterson, R. Lloyd, & Co., Corpora-
tion street, Belfast. |
| Fiddes & Co., M. J., Donegall place,
Belfast. | Preston, John, & Co., Calender street,
Belfast. |
| Finlay, Brown, & Co., Police square,
Belfast. | Reynolds, Archibald, Corporation st,
Belfast. |
| Glenn, James, Corporation st, Belfast. | Richardson, Bros., & Co., Donegall pl,
Belfast, and Dublin, Cork, and
Galway. |
| Harper, Martin, & Son, Victoria street,
Belfast. | Smith, J. & T., Tomb street, Belfast. |
| Henderson, David, 10, Corporation st.,
Belfast. | Smith, John A., & Co., Londonderry. |
| Hunter, John, jun., & Co., Corporation
street, Belfast. | |

Flax and Tow Merchants and Commission Agents.

- | | |
|--|--|
| Adams, William, Strabane. | Boyd, Robert, Armagh. |
| Beattie, James, Linen Hall, Belfast. | Connolly, Henry, Eliza street, Belfast. |
| Bell & Co., Richard, Linen Hall, Belfast. | De Bruyn, H. T., Victoria st, Belfast. |
| Bell, Timothy, Corporation st, Belfast. | Devlin, W. J., Cookstown. |
| Beverley, Alexander, Belfast. | Finlay, Brown, & Co., 20, Police sq,
Belfast. |
| Bingham, G. Gerald, Waring street,
Belfast. | Gailey, Daniel, Coleraine. |

Gordon, George, & Son, Ann street, Belfast.	Nicholl, Parker, & Co., Donegall st, Belfast.
Halferty & Son, John, Londonderry.	Oulton & Co., John, 37, Donegall st, Belfast.
Henry, Bernard, Cookstown.	Patterson & Co., R. Lloyd, 22, Corporation street, Belfast.
Henderson, David, 10, Corporation st, Belfast.	Plunkett & Son, F., Corporation street, Belfast.
Hogg & Co., John, 2, Corporation st, Belfast.	Preston & Co., John, 20, Calender st, Belfast.
Hunter, jun., & Co., John, Corporation street, Belfast.	Rafter, W. P., Wellington pl, Belfast.
Hyndman, James, Commercial court, Belfast.	Reade, Clarke, & Co., 62, Upper Queen street, Belfast.
Kamcke & Co., W. R., Linen Hall, Belfast.	Reilly, Edward, Waring st, Belfast.
Kelly, Francis, & Co., Monaghan.	Reynolds, Archibald, Corporation st, Belfast.
Lavender, Wm. J., Ballymena.	Richardson, Bros., & Co., Donegall pl, Belfast.
Linden & Co., M. R., 35, Police sq, Belfast.	Savage & Co., Sir John, 46 & 48, Victoria street, Belfast.
MacGeagh & MacLaine, Ann st, Belfast.	Smyth & Co., J. A., Londonderry.
Meadley, Thomas, Corporation street, Belfast.	Stevenson & Douglass, Dungannon.
M'Closkey, James, Ballymoney.	Thompson, W. G., Money more.
M'Cullough, Archibald, Commercial court, Belfast.	Trimble, James, Strabane.
M'Donald, Francis, Cullingtree road, Belfast.	Williamson, J., 28, Grattan st, Belfast.
M'Kinley, David, & Son, Armagh.	Wilson Bros., North street, Belfast.
M'Mahon, James, Armagh.	Wilson, John, Newry.
	Woods, James, Cootehill.

Flax and Tow Yarn Spinners.

Adair, Thomas, & Co., Cookstown.	Dunbar, M'Master, & Co., Gilford.
Andrews, John, & Co., Comber.	Edenderry Spinning Co. (Limited), Crumlin road, Belfast.
Barbour, William, & Sons, Lisburn.	Eliza Street Spinning Co., Eliza street, Belfast.
Belfast Flax and Jute Co. (Limited), Belfast.	Emerson, John, Ballysillan, Belfast.
Bells and Calvert, Whitehouse.	Ewart, William, & Son, Crumlin road, and Bedford street, Belfast.
Bessbrook Spinning Co., Bessbrook.	Falls Flax Spinning Company (Limited), Conway street, Belfast.
Blackstaff Spinning and Weaving Co. (Limited), Durham street, Belfast.	Fenton & Co., S. G., Linen Hall, Belfast.
Braidwater Spinning Co. (Limited), Ballymena.	Gordon & Co., North Howard street,
Broadbent, Samuel E., Cogry, Doagh.	Greeves, J. & T. M., Falls rd, Belfast.
Brookfield Linen Co. (Limited), Donegall street, Belfast.	Gunning & Campbells (Limited), North Howard street, Belfast.
Balmore Spinning Co., Ballymoney.	Hale, Martin, & Co., Dungannon.
Buncranagh Spinning Co., Buncranagh.	Hay, James, Grove Mill, Belfast.
Campbell, Henry, & Co., Mossley Mill, Belfast.	Hayes, F. W., & Co., Banbridge.
Craig, Samuel, Ballymoney.	Herdman & Co., Sion Mills, Strabane.
Dempster, Robert, Newry.	Hind, John, & Sons, Durham st, Belfast.
Duff Bros., Coagh, Money more.	Hursts, Drumaness, Ballynahinch.
Duffin, Charles, & Co., Lagan village, Belfast.	Irvine, Hill, Newry.

Island Spinning Co. (Limited), Lisburn.	Savage, Sir John, & Co., Crumlin rd, Belfast.
Johnston, Philip, & Sons, Jennymount, Belfast.	Shaw, Edward, & Co., Celbridge and Belfast.
Killyleagh Flax Spinning Company (Limited), Killyleagh.	Shaw, Joseph, Celbridge.
Kirk, W. M., & Co., Darkley, Keady.	Shaw, William, & Co., Cork.
Lawrence Bros., Coleraine.	Sinton, Thomas, Tandragee.
Ligoneil Spinning Co., Ligoneil, Belfast.	Smithfield Flax Spinning & Weaving Co. (Limited), Smithfield, Belfast.
Limavady Spinning & Weaving Co. (Limited), Limavady.	Smyth, Robert, Emyvale.
Lisdourt Spinning Co., Ballygawley.	Spamout Spinning Co., Spamout
Martin, John, & Co. (Ld.), Killyleagh.	Mill, Castlederg.
Milewater Spinning Co., Milewater, Belfast.	Stewart, Robert, & Sons, Lisburn.
Milfort Spinning Co., Falls rd, Belfast.	St. Mary's Flax Spinning Co., Drogheda.
Mitchell Bros., Crumlin road, Belfast.	Taylor, James, & Sons, Carrickfergus.
Moore, W. T., & Co., Ld., Monkstown Mill, Belfast.	Ulster Spinning Co. (Limited), Bath pl, Falls road, and Linfield, Belfast.
Moreland Brothers, Loopbridge Mill, Belfast.	Walker, George, Newtownards.
Murland, James, Castlewellan.	Wallis & Pollock, Cork.
Murphy & Reynolds, Armagh.	Weir, A. C., & Co., Dunmurry.
M'Cleery & Reynolds, Doagh.	Whiteabbey Flax Spinning Co. (Ld), Whiteabbey, Belfast.
M'Kean, Sons, & Co., Castleblaney.	Whitehouse Spinning Co., Whitehouse, Belfast.
Northern Spinning & Weaving Co. (Limited), Falls road, Belfast.	Wilson, Abraham, Newry.
Roan Spinning Company, Coalisland, Dungannon.	Wolfhill Spinning Company, Wolfhill, Belfast.
Ross, William, & Co., Clonard Mill, Belfast.	York Street Flax Spinning Company (Limited), Henry street, Belfast.

Linen Yarn Merchants and Commission Agents.

Anderson, James, Lurgan.	Fiddes & Co., M. J., Wellington pl, Belfast.
Anderson, Wm. Ballymena.	Finlay Bros. & Co., Corporation st., Belfast.
Bell & Co., R., Linen Hall, Belfast.	French, Duncan & Co., 31, Rosemary street, Belfast.
Betzold & Co., George, Fountain lane, Belfast.	Gaffikin & Co., Thos., Bedford street, Belfast.
Brookfield Linen Co. (Ld.), Donegall street, Belfast.	Herdmans & Co., Donegall sq. south, Belfast.
Capper May, & Co., Upper Queen st., Belfast.	Hunter, jun., & Co, John, Corporation street, Belfast.
Close, Robert, Ballymena.	Jaffe Bros., & Co., Donegall sq. east, Belfast.
Collins, & Co., John, Queen street, Belfast.	Johnston, W. Sibbald, Bedford street, Belfast.
Dickson, Robt., Donegall sq. North, Belfast.	Johnston & Allen, Lurgan.
Duffin & Co., Charles, Waring street, Belfast.	Kamcke & Co., W. R., Linen Hall, Belfast.
Ewart & Son, Wm., Bedford street, Belfast.	Lipman & Co., Bedford street, Belfast.
Fenton & Co., S. G., Linen Hall, Belfast.	

MacGeagh & MacLaine, Ann street, Belfast.	Savage & Co., Sir J., Victoria street, Belfast.
Moore & Weinberg, Linen Hall, Belfast.	Shaw & Co., Edward, Victoria street, Belfast.
Moreland Bros., Donegall pl., Belfast.	Ulster Spinning Co. (Ld.), Falls road, Belfast.
Murphy, Joseph, Lurgan.	Vance, Gilbert, Donegall street, Belfast.
Patterson, White, & Co., Corporation street, Belfast, and Lurgan.	Wallis & Pollock, Cork.
Pim Bros. & Co., Upper Queen street, Belfast.	Wilson Bros., Winecellar entry, Belfast.
Preston & Co., John, Calender street, Belfast.	Wood, John, Donegall square North, Belfast.
Reade, Clarke, & Co., Up. Queen st., Belfast.	Workman J. & R., Bedford street, Belfast.
Richardson Bros. & Co., Donegall pl., Belfast.	York Street Flax Spinning Company (Limited), Henry street, Belfast.
Richardson, Grubb, & Co., Donegall sq. south, Belfast.	

Linen Manufacturers (Power and Hand-loom), Linen Merchants, and Commission Agents.

Acheson & Smith, Castlecoalfield, Dun- gannon.	Begg & Co., Alexander, Londonderry.
Adair & Son, Thomas, Greenvale, Cookstown.	Bellas, J. H. & G., Ballymena.
Adams, R. J., Howard street, Belfast.	Bell & Co., Thomas, Lurgan.
Adams & Co., John, Ballydevitt, Bally- money.	Bell & Co., R., Linen Hall, Belfast.
Addy, Wm., Allistragh, Armagh.	Bell, W. L. & H. H. & Co., Bedford street, Belfast.
Agnew, Wm., Ahoghill.	Bessbrook Spinning Co., Bessbrook, Newry.
Aickin, William, Cullybackey.	Best & Co., W. J., Dunadry.
Alexander, Saml. Maxwell, J.P., D.L., Limavady.	Betzold & Co., George, Fountain lane, Belfast.
Anderson, J., Ahoghill.	Black & Co., Jas., Dunmaul House, Randalstown.
Anderson, J., Tubberhead, Maghera- felt, Co. Derry.	Blackstaff Spinning and Weaving Co. (Limited), Durham street, Belfast.
Andrews, Archibald, near Ballymena.	Blakely, Thomas, Bleary, Lurgan.
Andrews, M., Ardoyne, Belfast.	Boal, J. & H., Slatt, Ballymena.
Andrews, W. J., near Ballymena.	Brookfield Linen Company (Limited), Donegall street, Belfast.
Armstrong, Robt., Hudson St. Factory, Belfast.	Brown & Co., Drapersfield, Cookstown.
Arthur & Son, John, Strabane.	Brown, J. S., & Sons, Bedford street, Belfast.
Banford Bleachworks Compy., Banford Green, Gilford, Co. Down.	Brown, Robt., & Co., Donegall square north, Belfast.
Bann View Weaving Factory, Gar- vaghey road, Portadown.	Bryson, Wm., Waring street, Belfast.
Barcrofts & Co., Redford Mills, Moy.	Bullock, G. A., Bedford street, Belfast.
Barklie, J. & A., Inver, Larne.	Bullock Bros., Donegall square south, Belfast.
Barklie & Co., Thomas, Mullamore, Ballymoney.	Bullock & Co., Linen Hall st., Belfast.
Bedford Street Weaving Co., Bedford street, Belfast.	Burns & Macaulay, James st. South, Belfast.

- Calder & Co., J. M., Bedford street, Belfast.
 Calwell, Andrew, Clough.
 Cameron, James, Ballymoney.
 Cameron, Hugh, Ballymena.
 Campbell, B., Clare, Laurencetown.
 Campbell, S., Ballylumin, Ahoghill.
 Carey, M'Clelland, & Co., Londonderry.
 Carter & Sons, Thos. Up. Queen st., Belfast.
 Caruth, R., Craigwarren, Ballymena.
 Castleisland Linen Co., Office—Linen Hall, Belfast; and Portadown.
 Cautherwood, M., Craigs, Cullybackey.
 Chaine & Son, William, Muckamore, Antrim.
 Charley, & Co., J. & W., Dunmurry.
 Charley, Telford, & Co., Howard st., Belfast.
 Charley, Wm., & Co., Lisburn.
 Chesney, R., Grange Corner, Toome Bridge.
 Christian, J. R., 8, Donegall sq. south, Belfast.
 Cinnamond, Park, & Co., Linenhall street, Belfast.
 Clark, Robert, Moy, Co. Tyrone.
 Clarke, John, Dromore.
 Clarke, William, Portrush.
 Clendinning, J., High st., Lurgan.
 Clibborn, Hill, & Co., Banbridge.
 Close, Robert, Ballymena.
 Conland & Sons, John, Alfred street, Belfast.
 Connor, Foster, Linen Hall, Belfast.
 Cordner, Alexander, Lurgan.
 Coulson, & Co., James, Lisburn.
 Coulson, William, & Sons, Lisburn.
 Cowdy, Anthony, Portadown.
 Craig, Mrs., Strabane.
 Crawford & Co., Glenbana, Gilford.
 Crawford & Co., George, Hazelbank, Laurencetown.
 Crawford & Lindsays, Banbridge.
 Crosbie, G., Dromore.
 Currell & Co., Daniel, jr., Linenhall st., Belfast.
 Currell, Andrews, Ballymena.
 Curry, Samuel, Ballymena.
 Darbishire Bro., Fountain lane, Belfast.
 Davison, M., Ballyscullian, Co. Derry.
 Davison & Co., Robert, Bedford street, Belfast.
 Dawson, T., Charles street, Portadown.
 Devlin, James, Cookstown.
 Dickson & Sons, Peter, Castledawson.
 Dickson, Robert, Bedford st., Belfast.
 Dickson, Thos. A., Milltown Factory, Dungannon.
 Dicksons, Ferguson, & Co., Linenhall street, Belfast.
 Dixon, John M., Tullycairn, Dromore.
 Doherty, James, Finvoy, Ballymoney.
 Doherty, John, Rasharkin.
 Douglas, J., Donegall street, Belfast.
 Douglas, John, & Sons, Lurgan.
 Duffin, E. G., & Co., Little Sackville street, Belfast.
 Duke, Graham, & Lockwood, Clarence street, Belfast.
 Dunbar, M'Master, & Co., Gilford.
 Dunlop, Wm., Kells, Ballymena.
 Dunlop, W. H., Linenhall street, Belfast.
 Dunseath & Sons., James street South, Belfast.
 Eakin, S., Rock Spring, Moneymore.
 Eakin, Samuel E., Coagh.
 Easdale, Wm., Castledawson.
 Eliza Street Spinning Co., Eliza street, Belfast.
 Elliott, John, Lurgan.
 Elliott, John, & Co., Bedford street, Belfast.
 Ellison, John, Flax Works, Lisburn.
 English, Wm., Howard st., Belfast.
 Ennis, Thomas, & Co., Drogheda.
 Ewing, Son, & Co., Donegall square, south, Belfast.
 Falloon, John, Lurgan.
 Falls Flax Spinning Co., Falls road, Belfast.
 Fenton, Connor, & Co., Linen Hall, Belfast.
 Ferguson, J., & Co., Linenhall street, Belfast.
 Ferguson, & Co., T., Edenderry.
 Ferris & Co., Linenhall street, Belfast.
 Fiddes, M. J., & Co., Wellington pl., Belfast.
 Finlay Bros. & Co., Corporation st., Belfast.
 Fleming, James, Franklin pl., Belfast.
 Flinn & Co., N., Drogheda.
 Forestbrook Linen Co., Rostrevor.
 Fulton, Joseph, & Co., Howard street, Belfast.
 Gaffikin, Thos., & Co., Bedford st., Belfast.
 Gamble, Shillington, & Co., Broadway, Belfast.

- Gibson, George, & Co., Queen street, Belfast.
 Gibson, Ranger, & Co., Londonderry.
 Gibson, Robert B., Londonderry.
 Giffen, James, Ballymena.
 Gihon, W., jun., Clonavon, Ballymena.
 Gilles Linen Co., Armagh.
 Gilmer, William, Ballymena.
 Girdwood, Maxwell, & Co., Linen Hall, Belfast.
 Glass Bros. & Co., Franklin street, Belfast.
 Glass, J., & Co., Portglenone.
 Glass, John, King street, Belfast.
 Glass, R., & Co., West st., Portadown.
 Goodbody, J. & F., Clara, King's Co.
 Gordon Brothers & Co., Lawnbrook Factory, Belfast.
 Grant & Co., Alex., Londonderry.
 Gray, George, & Sons, Glenanne, Markethill.
 Grenier, P. & Co., Franklin pl., Belfast.
 Greenham, George, Athy.
 Greenmount Spinning Co., The, Up. Queen street, Belfast.
 Gribbon, Alexander, Bedford street, Belfast.
 Gribbon Edward, & Sons, Coleraine.
 Guild, Alexander, & Co., Bedford street, Belfast.
 Gunning & Son, John, Cookstown.
 Guynet & Co., L. H., Chichester st., Belfast.
 Hale, David, Drumavaddy.
 Hanna, William, jun., Castlewellan.
 Hanna, William J., Cloughmills.
 Harbison, James, Magherafelt.
 Harden, Charles, Thomas st., Portadown and Tandragee.
 Harrison, Brothers, Dromore.
 Harden Bros., Harrison & Co., Belfast and Lurgan.
 Hazelton, Dawson, Killyman, Moy.
 Henderson, J., Sherrygroom Factory, Dungannon.
 Henning & Son, John, Waringstown.
 Henry, A. & S., & Co., Wellington pl., Belfast.
 Henry & Haig, Bedford Street, Belfast.
 Henry, James, Tyane, Co. Derry.
 Henery, Thos., Ballygronan, Co. Derry.
 Herd, M. C. Franklin street, Belfast.
 Heron & Lutton, Lurgan.
 Heron, W. & Co., William st., Lurgan.
 Hind & Sons, J., Durham st., Belfast.
 Hilton, John, Portglenone.
 Hilton & Co., J., Portglenone.
 Hilton, Robert, Cullybackey.
 Houston, W. W. & Co., James street south, Belfast.
 Hughes, George, & Co., Donegall sq. south, Belfast.
 Hull, Henry, & Co., Drogheda.
 Hutchinson, Richard, Broughshane, Ballymena.
 Island Spinning Co. (Ld.), Island Mills, Lisburn.
 Jaffe Bros., Donegall sq. south, Belfast.
 Jardine, William, Dromore.
 Jefferson, Wm., & Co., Foyle street, Londonderry.
 Johnston, Jas., Commercial Chambers, Belfast.
 Johnston, James, Castledawson.
 Joymount Manufacturing Co., Carrickfergus.
 Kamcke & Co., W. R., Linen Hall, Belfast.
 Kelly, D., Sandymount, Castledawson.
 Kelly, James, Ballynease, Co. Derry.
 Kelly, T., New Ferry, Toome Bridge.
 Kennedy, D., Church street, Belfast.
 Kennedy, H., Milltown, Toome Bridge.
 Kennedy, James, Strabane.
 Kennedy, Patrick, Grange, Milltown, Toome Bridge.
 Kernahan, Thomas, Portadown.
 Kirk, David, Moorfield, Ballymena.
 Kirk, W., & Son, Bedford st., Belfast, and Keady.
 Kidd, Tassie & Co. Bedford street, Belfast.
 Lamont, & Son, Samuel, Eden, Ballymoney.
 Langtry, Fred, Moira.
 Lawson, Alexander, Lurgan.
 Lecky, F. B., Donegall square north, Belfast.
 Lee, James, Randalstown.
 Liddell, William, & Co., Bedford street, Belfast.
 Lindsay, G. & J., Banbridge.
 Lindsay, Maurice, Dromore.
 Lindsay, R., & Co., Victoria st., Belfast.
 Lipman & Co., Bedford street, Belfast.
 Livingston, J., Fountain st., Belfast.
 Livingston, T., & Co., Linenhall street, Lennon, T. & Co., Linenhall street, Belfast.
 Luke, Joseph, Ahoghill, Co. Antrim.
 Lutton, Andrew J., & Son, Linenhall street, Belfast.

- Lyn, Wm., Little Bridge, Cookstown.
 Maclean, S. T., Linenhall st., Belfast.
 Macoun, W. & J. Lurgan.
 Macoun, & Co., James, Lurgan.
 Macoun, John R., Lurgan and Belfast.
 Macneary, Henry, Coleraine.
 Magee Bros. & Co., Lurgan.
 Magee, & Co., Jas. R., Bedford st., Belfast.
 Magee, Thos. H., Clarence st., Belfast.
 Magee, W. J., Lisburn.
 Major Bros., James st. south, Belfast.
 Malcolm & Pentland, Bedford street, Belfast and Lurgan.
 Malcolmson Bros., Portlaw.
 Mann, W. C., Hill Head, Castledawson.
 Martin, H., & Co., Clarence place, Belfast.
 Martin, R. & D., Linenhall st., Belfast.
 Masson, Kennedy, & Co., Strabane.
 Matier, & Co., Henry, Clarence place, Belfast.
 Mawhinney, Wm., Hill Head, Castledawson.
 Maxwell, William, Lurgan.
 Miller, H., Greenhall, Castledawson.
 Miller, T., Greenhall, Castledawson.
 Mitchell, Bros., Crumlin Road, Belfast.
 Moneypenny & Watson, James street south, Belfast.
 Montgomery & Co., Linen Hall, Belfast.
 Moore, Jas., jun., Ballyconley, Cullybackey.
 Moore, J. & J. R., Ballyconley, Cullybackey.
 Moore & Weinberg, Linenhall street, Belfast.
 Moreland Bros., Donegall pl., Belfast.
 Morton, James, Bellaghy, Co. Derry.
 Murland, James, Annsborough, Castlewellan.
 M'Bride, Robert, & Co., Bedford street, Belfast.
 M'Bride, S. W., & Co., Lurgan.
 M'Caughey & Co., Lurgan.
 M'Caw, W. & J., Portglenone.
 M'Clelland, Robt., & Sons, Banbridge.
 M'Convill, Thomas, Lurgan.
 M'Corry, Jas., & Co., Linenhall street, Belfast and Lurgan.
 M'Cosh, R., Broughshane, Ballymena.
 M'Crory & Sons, William, Lurgan.
 M'Crum, Robert, & Co., Armagh.
 M'Crum, Watson & Co., Bedford st., Belfast.
 M'Cullough, R., 14, James st. south, Belfast.
 M'Donald, J., near Moy.
 M'Fadden, James, Portglenone.
 M'Ferran & Co., J. H., Donegall sq. west, Belfast.
 M'Gaghey, Robert, Cookstown.
 M'Geagh, John, Cookstown.
 M'Govern, M., & Son, Drogheda.
 M'Guckin, Neal, Ballinderry Bridge, Moneymore.
 M'Ilveen, H. & S., Donegall sq. north, Belfast.
 M'Ilveen, J. T., Donegall square north, Belfast.
 M'Intyre, Hogg, & Co., Londonderry.
 M'Iver, Robert, Cookstown.
 M'Kane, R., Tullygarley, Ballymena.
 M'Kean, Hall, & Co., Clarence place, Belfast.
 M'Kean, Sons, & Co., Castleblayney.
 M'Lernen, Hugh, Ballymoney.
 M'Master & Gray, Portadown.
 M'Mullan, James, Portglenone.
 M'Murray, Thos., & Co., Dromore.
 M'Neay, H., Aghadowey, Ballymoney.
 M'Neice, James, near Moy.
 M'Whirter, Thomas, Ballymena.
 Nelson, H., Crosskeys, Toome Bridge.
 Nelson, M., Crosskeys, Toome Bridge.
 Nelson, T., Crosskeys, Toome Bridge.
 Nelson, W. R., Lurgan.
 Nicholl, W., Ballyconley, Cullybackey.
 Northern Spinning and Weaving Co. (Limited), Falls Factory, Belfast.
 O'Neill, H., Moy.
 O'Neill, J. B., Donaghmore.
 O'Neill, John, & Co., Foyle street, Londonderry.
 Orr, Joseph, Loughgall.
 Orr & Sons, Strangmore, Dungannon.
 Pauley & Sands, James street south, Belfast.
 Patrick, John, & Sons, Ballymena.
 Patterson, D., Rasharkin, Ballymoney.
 Paul, William, Cookstown.
 Perry, Miss, Strabane.
 Philipp & Co., Linenhall st., Belfast.
 Pike & Son, Jonathan, Dungannon.
 Pim Bros., & Co., Upper Queen street, Belfast.
 Preston, Smyth, & Co., Donegall sq. south, Belfast.
 Reid & M'Ilveen, Linenhall st., Belfast.
 Reade, Clarke, & Co., Upper Queen street, Belfast.
 Richardson Brothers & Co., Donegall place, Belfast.

- Richardson & Niven, Lambeg Factory, Lisburn.
 Richardson, R. K., Franklin street, Belfast.
 Richardson, Sons, & Owden, J. N., Donegall square north, Belfast.
 Robb, Hamilton, Portadown.
 Ross, John, Kells, Ballymena.
 Ross, John, & Co., Lurgan.
 Savage, John, Point.
 Sayers, Andrew, Cloughmills.
 Sefton, J. R., & Co., Adelaide place, Belfast.
 Shaw, Edward, & Co., Victoria street, Belfast.
 Shillington Bros., 1, Adelaide Place, Belfast and Lurgan.
 Shillington, Henry, Aghalee.
 Shillington, J. J., & Co., Broadway, Belfast.
 Shillington, J. W., Adelaide pl., Belfast.
 Sinclair, S. & Co., Franklin st., Belfast.
 Sinton, Thomas, Tandragee.
 Smithfield Flax Spinning Co. (Limited), Smithfield, Belfast.
 Smyth, John, Clady, Co. Derry.
 Smyth, Robert, Broughshane.
 Smyth, Thos., Hazelview, Rasharkin.
 Smyth, William, & Co., Banbridge & Donegall square west, Belfast.
 Sprott, Wm., & Co., Dromore, Co. Down.
 Stevenson & Clarke, Coalisland, Dungannon.
 Stevenson, Douglass, & Co., Dungannon.
 Stewart, A. T., & Co., Wellington pl., Belfast.
 Stewart, John, Clintagh, Coleraine.
 Stewart & Co., R. W., Donegall street, Belfast.
 Stewart, S., & Co., Donegall street, Belfast.
 Stewart & Sons, Wm., Bedford street, Belfast, and Lurgan.
 St. Mary's Flax Spinning Company, Drogheda.
 Thompson, W. G., Coagh, Moneymore.
 Thompson, James, & Sons, Ormeau Road, Belfast.
 Thompson, Joseph, Ballymena.
 Thompson, R., Son, & Co., Donegall square south, Belfast.
 Thompson, William, & Co., Lagan & Factory, Lisburn.
 Thompson, Kelly & Co., Linenhall street, Belfast.
 Tillie & Henderson, Londonderry.
 Tilly, James, Gaskin place, Belfast.
 Todd, M'Call & Co., Linenhall street, Belfast.
 Trinker, Wm., & Co., James street south, Belfast.
 Turtle, William L., Aghalee.
 Ulster Damask and Linen Co., Linen Hall, Belfast.
 Vallye, J. L., Glengall place, Belfast.
 Vance, Gilbert, Donegall street and York lane, Belfast.
 Walker, Wm., & Co., Banbridge.
 Watson, Armstrong, & Co., Donegall square west, Belfast, and Portadown.
 Watson, W. K., Franklin st., Belfast.
 Wasson, Samuel, Ballymena.
 Watson & Sons, R., Lurgan.
 Watson, Valentine & Co., Amelia st., Belfast.
 Waugh & Co., Wm., Banbridge.
 Webb Brothers, Randalstown.
 Weir, James, Ahoghill.
 Weir, William, Cookstown.
 Welch, Margetson, & Co., Londonderry.
 Whearty, John, & Co., Duleek, near Drogheda.
 Whiteabbey Bleaching Co., Whiteabbey, Belfast.
 Whiteside, Mrs., Prockless, Randals-town.
 Wilkinson & Turtle, Linenhall street, Belfast.
 Woodlock, Duke, & Co., Lurgan.
 Woods, C., Moygashel, Dungannon.
 Wood, J., Donegall sq. north, Belfast.
 Wylie, Samuel, Ballymena.
 Wynne, Thomas, & Co., Armagh.
 York Street Flax Spinning Company (Limited), Henry street, Belfast.
 Young, J. & R., Ballymena, and Donegall square north, Belfast.

Bleachers, Dyers, Printers, &c.

- Adams, J., & Co., Ballydevitt, Ballymoney, and Howard street, Belfast.
 Addy, Wm., Allistragh, Armagh.
 Andrews, Michael, Ardoyne, and Kilroot, Carrickfergus.
 Banbridge Bleaching Company, Banbridge.
 Banford Bleach Works Co., Banford Green, Gilford.
 Barbour, Samuel, Clanwilliam, Lisburn.
 Barbour, W., & Sons, Lisburn.
 Barcrofts & Co., Dundrum Bleach Works, Keady, and Redford Mills, Moy.
 Barklie, J. & A., Inver, Larne.
 Barklie, Thos., & Co., blrs., Mullamore, Ballymoney.
 Best, W. J., & Co., Dunadry.
 Brookfield Linen Company (Limited), Donegall street, Belfast.
 Brown, John S., & Sons, Bedford street and Edenderry, Belfast.
 Burrows, Thos., Stoneyford, Lisburn.
 Carey, M'Clelland, & Co., Ardmore Green, Londonderry.
 Chaîne, William, & Son, Muckamore.
 Charley, J. & W., & Co., 22, Wellington pl., Belfast, and Dunmurry.
 Charley, Telford, & Co., 14, Howard street, Belfast.
 Clady Bleach Works Co., Dunadry.
 Clarke, John A., & Co., Castledawson.
 Clonard Print Works Co., Falls Road, Belfast.
 Connor, Foster, Linen Hall, Belfast.
 Crawford, Thomas, Dunmurry.
 Crawford & Lindsays, 3, Adelaide place, Belfast, and Banbridge.
 Darbshire Bros., 9, Fountain lane, Belfast.
 Dicksons, Ferguson, & Co., Linenhall street, Belfast, and Banbridge.
 Dickson, T. A., Milltown Factory, Dungannon.
 Dunbar, M'Master, & Co., Gilford.
 Ewart, Wm., & Son, Bedford street, Belfast, and Glenbank.
 Ewing, Son, & Co., Donegall square south, Belfast.
 Fenton, Connor, & Co., Linen Hall, and Hyde Park, Belfast.
 Fenton, S. G., & Co., Linen Hall, Belfast.
 Ferguson, John S., & Co., Linen Hall, Belfast.
 Ferguson, James, & Sons, Newforge, Belfast.
 Gihon, Wm., jun., Lisnafinlen Bleaching Company, Ballymena.
 Glenalina Bleaching Co., Bedford st., Belfast.
 Glenwood Dye Works Co., Shankhill road, Belfast.
 Gordon Bros. & Co. (Ld.), Lawnbrook Factory, Belfast.
 Gribbon, Edward, & Sons, Bleach Green, Dundarg, Coleraine.
 Gunning, J., & Son, Millburn Works, Cookstown.
 Hanna, John, Kildrum, Ballymena.
 Hilton, John, Portglenone.
 Hyde Park Bleaching Co., Mallusk, Belfast.
 Jaffe Brothers, Donegall square south, Belfast, and Gilford.
 Joymount Finishing Co., Carrickfergus.
 Kennedy, W. J., Moorfields, Ballymena.
 Kirk, Daniel, Tannybrake, Ballymena.
 Kirk, W., Crevilly Valley, Ballymena.
 Kirk, W., & Son, Bedford st., Belfast.
 Lee, J., Hollybrook House, Randals-town.
 Liddell, Wm., & Co., Bedford street, Belfast.
 Lisnafillan Bleaching Co., Ballymena.
 Malcolm & Pentland, Bedford street, Belfast, and Lurgan.
 Malcomsom, Wm., & Co., Donegall square west, Belfast.
 Martin, R. & D., Rostrevor, and Linenhall street, Belfast.
 Matier, H., & Co., Clarence pl., Belfast.
 Moore, D., Ballyleyland, Ballymoney.
 Moore & Weinberg, Linenhall street, Belfast.
 Morton & Simpson, Cullybackey.
 Murland, James, Annsborough, Castlewellan.
 M'Kean, Sons, & Co., Lara Mills, Castleblayney.
 M'Murray, Thomas, & Co., Dromore, Co. Down.
 Old Park Printing Co. (Ld.) Old Park, Belfast.
 Pike, J., & Son, Dungannon, Co. Tyrone.

Preston, Smyth, & Co., Donegall square south, Belfast.	Suffolk Linen Co., Dunmurry.
Richardson & Co., Lambeg, Lisburn.	Ulster Damask and Linen Co., Linen Hall, Belfast.
Richardson, J. N., Sons, & Owden, (Ld). Donegall sq. north, Belfast. Bleach-works Lisburn.	Uprichard, J. T. & H., Springvale and Millbank, Gilford.
Sloan, J., & Sons, Cookstown.	Wallace & Magill, Kells, Ballymena.
Ross, John, Kildrum, Ballymena.	Webb, Bros., Randalstown.
Smyth, Gilmore, & Co., Ballymena.	Whiteabbey Bleaching Co., White-abbey, Belfast.
Smyth, Wm., & Co., Milltown, Ban-bridge.	Whitewell Printing Co., Whitewell, Belfast.
Sprott, Wm., & Co., Dromore.	Wynne, J., Ballyards, Armagh
Springfield Bleaching Co., Donegall sq. west, Belfast.	Wynne, T., & Co., Lislea, Armagh.
Stewart, Robt., & Sons, Lisburn.	York Street Flax Spinning Co. (Ld.) Belfast.
Stevenson, Douglass, & Co., Dun-gannon.	Young, J. & R., Ballymena.

GENERAL ALPHABETICAL LIST

(EXCLUSIVE OF SCUTCH MILL PROPRIETORS).

ABBREVIATIONS.—*p. l. mfrs.*, power loom manufacturers; *h. l. mfrs.*, hand loom manufacturers; *l. y. mcht.*, linen yarn merchant; *blr.*, bleacher.

Acheson & Smith, p. l. mfrs., Castlecoalfield, Dungannon
 Adair, Thos., & Co., spinners, Greenvale Mills, Cookstown
 Adair, Thos., & Son, p. l. linen manufacturers, Cookstown
 Adair, Thos., & Son, linen merchants, Cookstown
 Adams, J., & Co., mfrs. and blrs., Ballydevitt, Ballymoney, and Howard st., Belfast
 Adams, Wm., flax mcht., Strabane
 Addy, Wm., mfr. &c., Allistragh, Armagh
 Agnew, Wm., h. l. mfr., &c., Ahoghill
 Aicken, Wm., h. l. mfr., &c., Cullybacky
 Alderdice, Thos., lin. com. agt., Franklin street, Belfast
 Alexander, Saml. Maxwell, p. l. mfr., Limavady
 Anderson, J., h. l. mfr., Ahoghill
 Anderson, James, l. y. mcht., Lurgan
 Anderson, J., h. l. mfr., Tubberhead, Magherafelt
 Anderson, William, l. y. mcht., Ballymena
 Andrews, Archd., h. l. mfr., near Ballymena
 Andrews, John, & Co., flax and tow spinners, Comber (Co. Down)
 Andrews, S., f. seed mcht., Victoria street, Belfast
 Andrews, Michael, linen and damask manufacturer and bleacher, Ardoyne, Belfast. London warehouse, 25, Milk street, Cheapside, E.C.
 Andrews, W. J., h. l. mfr., near Ballymena
 Armstrong, Robt., mfr., Hudson st., Belfast
 Arnold, Edgar, lin. com. agent, Brunswick street, Belfast
 Arthur, John, & Son, shirt mfrs., Strabane
 Balnamore Spinning Co., spinners, Ballymoney
 Banbridge Bleaching Co., bleachers, &c., Banbridge
 Banford Bleach Works Co., linen merchants and bleachers, Banford Green, Gifford (Co. Down)
 Bann View Weaving Factory, Garvaghey road, Portadown
 Barbour, Samuel, blr., &c., Clanwilliam, Lisburn
 Barbour, Wm., & Sons, flax spinners, yarn bleachers, dyers, and thread manufacturers, Lisburn
 Barcrofts & Co., p. l. mfrs. and finshrs., Redford Mills, Moy
 Barklie, J. & A., mfrs. and blrs., Inver, Larne
 Barklie, Thos., & Co., mfrs., &c., Mullamore, Ballymoney
 Beattie, James, f. seed and flax commission merchant, Linen Hall, Belfast
 Bedford St. Weaving Co., mfrs. and mchts., Bedford st., Belfast

Begg, Alex., & Co., mfrs., Londonderry
 Belfast Damask and Linen Co., Linen Hall, Belfast
 Belfast Flax and Jute Co. (Ld.) spinners, Donegall place, Belfast
 Belfast Linen Collar Co., Franklin street, Belfast
 Bellas, J. H. & G., p. l. mfrs., Ballymena
 Bell, Richd., & Co., f.seed, yarn and lin. mchts., Linen Hall, Belfast
 Bell, Thos., & Co., linen and cambric handkerchief manufacturers, &c.,
 Bellevue, Lurgan
 Bells & Calvert, spinners, Whitehouse
 Bell, Timothy, flax mcht., Corporation st., Belfast
 Bell, W. L. & H. H., & Co., lin. mchts., Bedford st., Belfast
 Bessbrook Spinning Co., spinners and p. l. mfrs., Bessbrook
 Best, W. J., & Co., mfrs. and finishers, Dunadry
 Betzold, George, & Co., manufacturers of linens and handkerchiefs, and linen
 yarn merchants, 24 and 26 Fountain street, Belfast
 Beverley, Alex., flax mcht., North street, Belfast
 Bingham, G. Gerald, flax com. agt., Waring st., Belfast
 Black, James, & Co., manufacturers of 18 to 43 inch plain linen, linen and cotton
 checks, linen stripes, hair cord, huckaback towels, drill, Arabian stripes,
 mosquito nettings, unions, Indian scarfs, linen handkerchiefs, lawns, &c.,
 Dunmaul House, Randalstown
 Blakely, Thos., mfr., Bleary, Lurgan
 Blackstaff Flax Spinning and Weaving Co. (Ld.) Durham st., Belfast
 Boal, J. & H., h. l. mfrs., Slatt, Ballymena
 Boyd, Robert, f.seed and flax mcht., Armagh
 Braidwater Spinning Co. (Ld.) The, spinners of line and tow yarns, Ballymena.
 Agents in Belfast—James and Robert Young
 Broadbent, Samuel E., flax spinner, Cogry mills, Doagh
 Brookfield Linen Co. (Ld.) flax spinners, power loom linen manufacturers,
 linen and linen yarn merchants, Donegall st., Belfast
 Brown, Corbett, & Co., f.seed mchts., Victoria st., Belfast
 Brown & Co., mfrs., Drapersfield, Cookstown
 Brown, J. S., & Sons, p. l. mfrs. and mchts., Bedford st., Belfast
 Brown, Robt., & Co., mchts., Donegall square north, Belfast
 Bryson, Wm., fancy linen manufacturer, 20, Waring st., Belfast
 Bulloch, G. A., mfrs. and mchts., Bedford st., Belfast
 Bulloch Bros., mfrs. and mchts., Linen Hall st., Belfast
 Bulloch & Co., mfrs. and mchts., Donegall square s., Belfast
 Buncranagh Spinning Co., Buncranagh
 Burns & Macaulay, mchts., James st. south, Belfast
 Burrows, Thomas, finishers, &c., Stoneyford, Lisburn
 Calder, J. M., & Co., p. l. mfrs. and mchts., Bedford street, Belfast
 Calwell, Andrew, h. l. mfr., Clough
 Cameron, Hugh, h. l. mfr., Ballymena
 Cameron, James, h. l. mfr., Ballymoney
 Campbell, B., h. l. mfr., Clare, Laurencetown
 Campbell, Henry, & Co., flax and tow spinners, Mossley, Belfast. Town
 office—Castle Buildings
 Campbell, S., h. l. mfr., Ballylumin, Ahoghill
 Capper May, & Co., l. y. mchts., Upper Queen street, Belfast
 Carey, M'Clelland, & Co., linen manufacturers and linen merchants, bleachers
 and finishers, Ardmore Bleach Green, Londonderry
 Carter, Thos. & Sons, h. l. mfrs., &c., Portadown and Upper Queen street, Belfast
 Caruth, R., h. l. mfr., Craigwarren, Ballymena
 Castleisland Linen Co., p. l. mfrs. and mchts., Portadown, and Linen Hall, Belfast
 Catherwood, M., h. l. mfr., Craigs, Cullybackey

- Chaine, Wm., & Son, linen merchants and bleachers, Muckamore, Antrim
 Charley, J. & W., & Co., linen merchants and bleachers, Dunmurry, near
 Belfast, and 22, Wellington place, Belfast
 Charley, Telford, & Co., mchts. and blrs., Howard street, Belfast
 Chesney, R., h. l. mfr., Grange Corner, Toome Bridge
 Christian, J. R., & Co., mchts., Donegall sq. south, Belfast
 Cinnamond, Park, & Co., mchts., &c., Linenhall street, Belfast
 Clady Bleach Works Co., Dunadry
 Clark, R., mfr., Moy
 Clark, John A., & Co., dyers, finishers, and mchts., Castledawson
 Clark, Wm., mfr., Portrush
 Clarence Street Weaving Co., p. l. mfrs., Clarence street, Belfast
 Clendinning, James, cambric handkerchief manufacturer, 54, High street,
 Lurgan. Agents—W. Wallace, 12, Bread Street, London. Duke,
 Graham, & Lockwood, 84, Leonard street, New York.
 Clibborn, Hill, & Co., linen merchants, Banbridge
 Clonard Print Works Co., bleachers, dyers, printers and finishers of linen and
 cotton goods, cambric handkerchiefs, lawn dresses, padded and printed,
 drills, &c., Falls road, Belfast
 Close, Robert, lin. and l. y. mcht., Ballymena
 Collins, John, & Co., l. y. mchts., Upper Queen street, Belfast
 Conland, John, & Sons, mchts., Alfred street, Belfast
 Connor, Foster, mfr., blr., and mcht., Linen Hall, Belfast
 Connolly, Henry, flax merchant, Eliza street, Belfast
 Cordner, Alexander, mfr., Lurgan
 Coulson, James, & Co., damask, sheeting, and linen manufacturers, Lisburn ;
 London, 11, Pall Mall East, S.W.
 Coulson, Wm., & Sons, mfrs., Lisburn
 Cowdy, Anthony, & Sons, mfrs., Portadown
 Craig, Samuel, tow spinner, nail bagging manufacturer, Liscolman Mills,
 Ballymoney
 Crawford, Thomas, printer of linen, cambric, cotton, and hemstitched handker-
 chiefs, in all styles and colours ; dyer and finisher of linens, lawns, unions,
 drills, duck coating, French elastic canvas, &c., Dunmurry, Belfast
 Crawford, Geo., & Co., mfrs. and mchts., Donegall square south, Belfast
 Crawford & Lindsays, mfrs., mchts., and blrs., Banbridge
 Currell, Daniel, jr., & Co., p. l. mfrs., Linenhall street, Belfast
 Curry, Samuel, h. l. mfr., Ballymena
 Darbishire Bros., manufacturers, bleachers, and finishers, 9, Fountain lane,
 Belfast
 Davison, M., h. l. mfr., Ballyscullian, Co. Derry
 Davison, R., & Co., linen mchts, Bedford street, Belfast
 Dawson, T., h. l. mfr., Charles street, Portadown
 De Bruyn, H. T., flax, hemp, tow merchant and agent, 16, Victoria chambers,
 Belfast
 Dempster, Robert, spinner of dry spun tows in flax, hemp, jute, &c., Spinning
 Mills, Newry
 Devlin, James, h. l. mfr., Cookstown
 Devlin, W. J., flax mcht., Cookstown
 Dickson, Peter, & Sons, h. l. mfrs., Castledawson
 Dickson, Robert, l. y. mcht., Bedford street, Belfast
 Dicksons, Ferguson, & Co., linen and damask manufacturers and bleachers,
 Linenhall street, Belfast. Works at Banbridge, Co. Down. London, 49,
 Bread street, E.C. Manchester, 76, Mosley street
 Dickson, Thomas A., linen manufacturer, by power, of damasks, drills, ducks,
 diapers, huckabacks, and plain linens, Dungannon, Co. Tyrone

Dixon, John M., h. l. mfr., Tullycairn, Dromore
 Doherty, James, h. l. mfr., Finvoy, Ballymoney
 Doherty, John, h. l. mfr., Rasharkin
 Donnelly, John, flax com. agt., Omagh
 Douglas, John, h. l. mfr., Donegall street, Belfast
 Douglas, John, & Sons, h. l. mfrs., Lurgan
 Duff Bros., spinners, Coagh, Money more
 Duffin, Charles, & Co., tow and jute spinners, Lagan village, Belfast
 Duffin, E. G., & Co., mfrs., Little Sackville street (Wilson street) Belfast
 Duke, Graham, & Lockwood, lin. mchts., Clarence street, Belfast
 Dunbar, M'Master, & Co., spinners, and power loom manufacturers, and bleachers, Gilford, Co. Down
 Dunlop, Wm., h. l. mfr., Kells, Ballymena
 Dunlop, W. H., mcht., Linenhall street, Belfast
 Eakin, S., h. l. mfr., Rock Spring, Money more
 Easdale, Wm., mfr., Castledawson
 Edenderry Spinning Co. (Ld.), The, flax and tow spinners. Messrs. Richardson Bros. & Co., Belfast, agents for sale of yarns
 Eliza Street Spinning Co., spinners, Belfast
 Elliott, John, & Co., mfrs. & mchts., Bedford street, Belfast, and Lurgan
 Ellison, John, mfr., Lisburn
 Emerson, John, spinner, Ballysillan
 English, Wm., & Co., collar mfrs., Howard st., Belfast
 Ennis, Thomas, & Co., mfrs., Drogheda
 Ewart, Wm.; & Son, spinners, p. l. manufacturers, bleachers, and merchants, Bedford street, Belfast
 Ewing, Son, & Co., lin. merchants, &c., Donegall square south, Belfast
 Falls Flax Spinning Company (Ld.), spinners & mfrs., Conway street, Belfast
 Faren, Joseph, & Sons, f. seed mchts., Waring street, Belfast
 Fenton, Connor, & Co., spinners, manufacturers, bleachers, dyers, and finishers of all classes of linen and union goods, for home and foreign markets, Linen Hall, Belfast
 Fenton, S. G., & Co., linen yarn merchants, Linen Hall, Belfast
 Ferguson, J. S., & Co., lin. mchts., Linen Hall, Belfast
 Ferguson, J., & Co., lin. mchts., Linenhall street, Belfast
 Ferguson, James, & Sons, linen, and linen yarn bleachers, Newforge, Belfast
 Fiddes, M. J., & Co., flaxseed, linen yarn, and linen mchts., Wellington Place, Belfast
 Finlay Bros. & Co., linen, and linen yarn commission merchants, 16, Corporation street, Belfast
 Finlay, Brown, & Co., flaxseed and flax merchants, Police square, Belfast
 Flinn N., & Co., lin. mfrs., Drogheda
 Forestbrook Linen Co., p. l. mfrs., Rostrevor
 Franklin Street Collar Co. (Ld.) Franklin street, Belfast
 French, Duncan, & Co., l. y. com. agts., 31, Rosemary street, Belfast
 Fulton, Joseph, & Co., lin. mchts., Howard street, Belfast
 Gaffikin, Thos., & Co., lin. and l. y. mchts., Bedford st., Belfast
 Gailey, Daniel, flax merchant, Coleraine
 Gamble, Shillington, & Co., Broadway damask factory, Belfast
 Gibson, George, & Co., mchts., Up. Queen street, Belfast
 Giffen, James, h. l. mfr., Ballymena
 Gihon, Wm., jun., linen merchant, Clonavon, Ballymena
 Gilles Linen Co., mfrs., Armagh
 Gilmer, William, h. l. mfr., Ballymena
 Girdwood, John, & Co., l. y. mchts., Linen Hall, Belfast
 Girdwood, Maxwell, & Co., p. l. mfrs., &c., Linen Hall, Belfast

- Glass Bros. & Co., merchants, Franklin street, Belfast
 Glass, J., h. l. mfr., Portglenone
 Glass, James, & Co., mfrs. and mchts., Bedford street, Belfast, and Lurgan
 Glass, R., & Co., mfrs., Portadown, and Donegall square East, Belfast
 Glenalina Bleaching Co., bleachers and mchts., Bedford street, Belfast
 Glenn, James, f. seed mcht., Corporation street, Belfast
 Glenwood Dye Works Co., Shankhill road, Belfast
 Goodbody, J. & F., mfrs., Clara
 Gordon Brothers & Co. (Ld.) mfrs., blrs., and finishers, Lawnbrook, Belfast
 Gordon, George, & Son, flax mchts., Ann street, Belfast
 Gordon & Co., spinners, North Howard street, Belfast
 Gray, George, & Sons, p. l. mfrs., Glenanne, Markethill
 Greenmount Spinning Co., The: cotton spinners; cotton and linen manufacturers of damasks, drills, ducks, towellings, plain linens, &c., Up. Queen street, Belfast. Factory at Harold's Cross, Dublin
 Greeves, J. & T. M., flax and tow spinners, Belfast; Agent for France and Belgium—Thomas MacGeagh & Co., Courtrai. Agent for Westphalia—William Gnuse, Bielefeld
 Grenier, P. & Co., mchts., Franklin place, Belfast
 Gribbon, Alexander, lin. mcht., Bedford street, Belfast
 Gribbon Edward, & Sons, mfrs., Coleraine
 Gunning, John, & Son, linen merchants, manufacturers and finishers, by power, of plain linens in all widths: Milburn Works, Cookstown. Agents in London—Gunning & Quarrell, 31, King street, Cheap side, and 12, Lawrence Lane. Manchester—A. B. Moore, 116, Portland street
 Gunning & Campbells (Ld.), spinners, North Howard street, Belfast
 Guynet, L. H., & Co., lin. mchts., &c., Chichester street, Belfast
 Hale, David, h. l. mfr., Drumnaddy, Lurgan
 Hale, Martin, & Co., spinners, Dungannon
 Halferty, John, & Son, flax mchts., Londonderry
 Hanna, John, dyer, &c., Kildrum, Ballymena
 Hanna, W. J., h. l. mfr., Cloughmills
 Harbison, James, flax mcht. and h. l. mfr., Magherafelt
 Harden, Charles, h. l. mfr., Portadown and Tandragee
 Harden Bros., Harrison & Co., linen and cambric handkerchief manfrs., Franklin street, Belfast, and Lurgan
 Harper, Martin, & Son, f. seed mchts., Victoria street, Belfast
 Harrison Bros., h. l. mfrs., Dromore
 Hay, James, spinner, Grove Mill, Belfast
 Hayes, F. W., & Co., spinners, Banbridge
 Henderson, David, flax, tow, and flaxseed merchant, 10, Corporation street, Belfast
 Henderson, John, manufacturer of linen and cotton tapes, venetian webs, chairwebs, mattress bindings, &c., frame tapes, stay bindings; agent in London—Charles Sessions; agent in Glasgow—A. M. Stewart, Virginia Buildings. Works—Sherrygroome Factory, Dungannon
 Henning, John, & Son, h. l. mfrs., Waringstown
 Henry, A. & S., & Co., lin. merchants, &c., Wellington place, Belfast
 Henry, Bernard, flax mcht., Cookstown
 Henry & Haig, linen collar manufacturers, 33, Bedford street, Belfast
 Henry, James, h. l. mfr., Tyane, Co. Derry
 Henrey, Thomas, h. l. mfr., Ballyronan, Co. Derry
 Herd, M. C., lin. mcht., &c., Franklin street, Belfast
 Herdmans & Co., spinners, Sion Mills, Strabane. Office—Donegall square south, Belfast
 Heron & Lutton, h. l. mfrs., Lurgan

- Heron, W., & Co., h. l. mfrs., Lurgan
 Hilton, John, dyer, &c., Portglenone
 Hilton, J., & Co., h. l. mfrs., Portglenone
 Hilton, Robert, h. l. mfr., Cullybackey
 Hind, John, & Sons, spinners, p. l. manufacturers and merchants, Durham st., Belfast
 Hogg, John, & Co., flax and tow merchants, 2, Corporation street, Belfast
 Holland, Wm., lin. mcht., &c., Linen Hall, Belfast
 Holmes, W. P., & Co., lin. mchts., Upper Queen street, Belfast
 Houston, W. W. & Co., h. l. mfrs., James street south, Belfast
 Hughes, George, & Co., lin. mchts., Donegall square south, Belfast
 Hull, Henry, & Co., linen manufacturers (by hand and power) of sheetings, diapers, hucks, bed ticks, rollerings, Drogheda linens, and bordered and check glass cloths, West street, Drogheda. Agent in London—Mr Edward Willcocks, 4, Gresham street
 Hunter, John, jun., & Co, f.seed, flax and l. y. mchts., Corporation st., Belfast
 Hunter, B. M., flax com. agt. Limavady
 Hunt, Nicholson, & Co., mchts., Bedford street, Belfast
 Hursts, spinners of line yarns from No. 50 to No. 120, and tow yarns from 14s to 30s, Drumaness Mills, Ballynahinch
 Hutchinson, Richard, h. l. mfr., Broughshane, Ballymena
 Hyde Park Bleaching Co., bleachers and finishers, Hyde Park, Mallusk, Belfast
 Hyndman, James, flax mcht., Commercial court, Donegall street, Belfast
 Irish Linen Shirt Co., shirt and coll. mfrs., Great Victoria street, Belfast
 Irvine, Hill, flax spinner, Dromalane Spinning Mill, Newry
 Island Spinning Co. (Ld.), spinners, Lisburn
 Jaffe, Bros., & Co., l. y. mchts., Donegall square east, Belfast
 Jaffe Bros., 10, Donegall sq. south, Belfast. Manufactory at Lurgan. Bleach-works at Gilford
 Jardine, William, mfr., Dromore
 Jefferson, Wm., & Co., lin. mfrs., Londonderry
 Johnston & Allen, l. y. mchts., Lurgan
 Johnston, Allen & Co., manufacturers, Lurgan
 Johnston, Jas., & Co., lin. mchts., &c., Waring street, Belfast
 Johnston, James, mfr., Castledawson
 Johnston, Philip, & Sons, spinners, Jennymount, Belfast
 Johnston, W. Sibbald, l. y. mcht., &c., Bedford street, Belfast
 Joymount Finishing Co., Carrickfergus
 Kamcke, W. R., & Co., flax, linen yarn, and linen merchants, Linen Hall, Belfast
 Kelly, Francis, & Co., flax mchts., Monaghan
 Kelly, D., h. l. mfr., Sandymount, Castledawson
 Kelly, James, h. l. mfr., Ballynease, Co. Derry
 Kelly, T., h. l. mfr., New Ferry, Toome Bridge
 Kelly, Thomson, & Co., linen manufacturers, merchants, and bleachers, 22, Linenhall street, Belfast. Agents—George W. Wilson & Co., 69, Piccadilly, Manchester. Frederick Knight, 3, Carey lane, London
 Kennedy, H., h. l. mfr., Milltown, Toome Bridge
 Kennedy, James, shirt mfr., Strabane
 Kennedy, Patrick, h. l. mfr., Grange, Toome Bridge
 Kennedy, W. J., dyer, &c., Moorfield, Ballymena
 Kernahan, Thomas, h. l. mfr., Portadown
 Kidd, Tassie, & Co., lin. merchants, &c., Bedford street, Belfast
 Killyleagh Flax Spinning Co. (Ld.), Killyleagh
 King Street Embroidered Linen Co., King street, Belfast
 Kirk, Daniel, dyer, &c., Tannybrake, Ballymena

- Kirk, David, h. l. mfr., Moorfield, Ballymena
 Kirk, Wm., & Son, linen manufacturers by power, bleachers, dyers, and finishers, Bedford st., Belfast. Works—Annvale, Keady
 Kirk, W., dyer, &c., Crevilly Valley, Ballymena.
 Kirk, W. M., & Co., spinners and mfrs., Darkley, Keady
 Lamont, Samuel, & Son, h. l. mfrs., Eden, Ballymoney
 Law, W., linen merchant, Donegall square south, Belfast
 Lavender, Wm. J., flax mcht., Ballymena
 Lawrence Bros., spinners, Coleraine
 Lawson, Alexander, mfr., Lurgan
 Lecky, F. B., lin mcht., &c., Donegall square north, Belfast
 Lee, James, h. l. mfr., finisher, &c., Randalstown
 Lennon, T. & Co., mchts., &c., Linenhall street, Belfast
 Ligoneil Spinning Co., spinners and mfrs., Ligoneil, Belfast
 Liddell, William, & Co., p. l. mfrs., mchts., &c., Bedford street, Belfast
 Limavady Spinning & Weaving Co. (Ld.) Limavady
 Linden, M. R., & Co., flax mchts., Police square, Belfast
 Lindsay, Maurice, h. l. mfr., Dromore
 Lindsay, Robt., & Co., mfrs. and mchts., Victoria street, Belfast
 Lipman & Co., lin. mchts., &c., Bedford street, Belfast
 Lisdourt Spinning Co., Ballygawley
 Lisnafillan Bleaching Co., bleachers, dyers, and finishers, Ballymena
 Livingston, J., h. l. mfr., Linenhall street, Belfast, and Lurgan
 Luke, Joseph, h. l. mfr., Ahoghill
 Lutton, Andrew J., & Son, linen manufacturers and merchants, 7, Linenhall street, Belfast. Manufactory at Portadown
 Lyn, William, h. l. mfr., Little Bridge, Cookstown
 Lytle, John, & Sons, f.-seed mchts., Victoria street, Belfast
 MacGeagh & MacLaine, flax, tow, and lin. y. mchts., Ann street, Belfast
 Maclean, S. T., com. mcht., Linenhall street, Belfast
 Macoun, James, & Co., p. l. mfrs., &c., Lurgan
 Macoun, John R., mfrs., &c., Moyraferly, Lurgan, and Belfast
 Macoun, W. & J., mfrs., &c., Lurgan
 Macneary, Henry, h. l. mfr., Coleraine
 Magee Bros., & Co., mfrs., &c., Lurgan
 Magee, Jas. R., & Co., lin. mchts., &c., Bedford street, Belfast
 Magee, Thos. H., lin. mchts., &c., Clarence street, Belfast
 Major Bros., lin. mchts., &c., James street south, Belfast
 Malcolm & Pentland, manufacturers and bleachers of cambric, linen and cambric handkerchiefs, lawn, &c., Bedford street, Belfast. London, 31, King street, Cheapside, E.C. Works at Lurgan
 Malcomson Bros., spinners and p. l. mfrs., Portlaw
 Malcomson, Wm., & Co., mfrs. and mchts., &c., Donegall square west, Belfast
 Malcomson & Wilson, h. l. mfrs., Portadown
 Mann, W. C., h. l. mfr., Hill Head, Castledawson
 Martin, John, & Co. (Ld.) spinners, Kilyleagh
 Martin, R. & D., linen merchants and bleachers, Kilbroney Rostrevor, and 123, Linenhall street, Belfast. Agent in London—W. G. Coles, 7a Falcon square, E.C.
 Masson, Kennedy, & Co., shirt mfrs., Strabane
 Mantel, Louis, & Co., lin. com. mchts., &c., Donegall sq. east, Belfast
 Matier, Henry, & Co., manufacturers and bleachers of cambric and linen handkerchiefs, linens, &c., Clarence place, Belfast
 Mawhinney, Wm., mfr., Hill Head, Castledawson
 Maxwell, William, mfr., Lurgan
 Maze, S. & Son, mfrs. and mchts., Clarence Place, Belfast

P

Meadley, Thomas, f.seed and flax mcht., Corporation street, Belfast
 Milewater Spinning Co., spinners, Milewater, Belfast
 Milfort Spinning Co., spinners and p. l. mfrs., Donegall square west, Belfast
 Miller, Wm., & Co., lin. mchts., Donegall sq. s., Belfast
 Mitchell, Bros., spinners and p. l. mfrs., Crumlin road, Belfast
 Money Penny & Watson, lin. mchts., &c., James street south, Belfast
 Montgomery, C., & Co., lin. mchts., &c., Linen Hall, Belfast
 Montgomery, Druiett, & Co., lin. mchts., &c., Linen Hall, Belfast
 Moore, D., dyer, &c., Ballyleyland, Ballymoney
 Moore, James, jun., h. l. mfr., Ballyconley, Cullybackey
 Moore, J. & J. R., h. l. mfr., Ballyconley, Cullybackey
 Moore, W. T., & Co. (Ld.) spinners, Monkstown Mill, Belfast
 Moore & Weinberg, manufacturers, bleachers, and merchants, Linenhall street, Belfast
 Moreland Bros., spinners and p. l. mfrs., Donegall place, Belfast
 Morton, James, linen manufacturer, Bellaghy, Co. Derry
 Morton & Simpson, dyers, &c., Cullybackey
 Mullan, William, f.seed mcht., Victoria street, Belfast
 Munster, Alfred M., & Co., f.seed mchts., Victoria street, Belfast
 Murland, James, spinner, linen manufacturer, and bleacher, Annsborough, Castlewellan. Agents in London—Messrs Gunning & Quarrell. New York—Mr Jno. Stewart. Berlin—Mr D. Gidion
 Murphy, Joseph, l. y. mcht., Lurgan
 Murphy & Reynolds, spinners, Armagh
 Murphy, Wm., & Co., mfrs., Donegall square north, Belfast
 M'Blain & Co., f.seed mchts., Newry
 M'Bride, Robert, & Co., mfrs. and mchts., Bedford street, Belfast
 M'Caughy & Co., cambric handkerchief and linen manufacturers, Lurgan
 M'Causland, Samuel, f.seed mcht., Victoria street, Belfast
 M'Caw, W. & J., h. l. mfrs., Portglenone
 M'Caw & Carlisle, h. l. mfrs., Lurgan
 M'Cleery & Reynolds, spinners, Doagh
 M'Clelland, Robt., & Sons, p. l. mfrs., &c., Banbridge
 M'Closkey, James, flax mcht., Ballymoney
 M'Conville, Thomas, mfr., Lurgan
 M'Corry, James, & Co., mfrs., &c., Linenhall street, Belfast, and Lurgan
 M'Cosh, K., h. l. mfr., Broughshane, Ballymena
 M'Crory, William, & Sons, mfrs., Lurgan
 M'Crum, Robert, & Co., p. l. mfrs., Armagh
 M'Crum, Watson & Co., p. l. mfrs., &c., Bedford street, Belfast
 M'Cullough, Archd., flax mcht., Commercial court, Belfast
 M'Donald, Francis, flax and tow com. mcht., Cullingtree road, Belfast
 M'Elderry, T. & J., flax com. agts., Ballymoney
 M'Fadden, James, h. l. mfr., Portglenone
 M'Ferran, J. H., & Co., lin. comn. agt., Donegall sq. west, Belfast
 M'Gaghey, Robert, mfr., Cookstown
 M'Geagh, John, mfr., Cookstown
 M'Govern, M., & Son, mfrs., &c., Drogheda
 M'Guckin, Neal, h. l. mfr., Ballinderry Bridge, Moneymore
 M'Ilveen, H. & S., mchts., &c., Donegall sq. north, Belfast
 M'Ilveen, J. T., mfr. and mcht., Donegall square north, Belfast
 M'Intyre, Hogg, & Co., shirt mfrs., Londonderry
 M'Kane, R., h. l. mfr., Tullygarley, Ballymena
 M'Kean, Sons, & Co., flax, tow, and jute spinners and manufacturers, Lara Mills, Castleblayney
 M'Kinley, David, & Son, flax mchts., Armagh

- M'Lernen, Hugh, h. l. mfr., Ballymoney
 M'Mahon, James, flax mcht., Armagh
 M'Master & Gray, p. l. mfr., Portadown
 M'Mullan, James, h. l. mfr., Portglenone
 M'Murray, Thos., & Co., linen and cambric manufacturers and bleachers,
 Dromore, Co. Down
 M'Neay, H., h. l. mfr., Aghadowey, Ballymoney
 M'Neese, Felix, h. l. mfr., near Moy
 M'Whirter, Thomas, h. l. mfr., Ballymena
 Nelson, H., h. l. mfr., Crosskeys, Toome Bridge
 Nelson, M., h. l. mfr., Crosskeys, Toome Bridge
 Nelson, T., h. l. mfr., Crosskeys, Toome Bridge
 Nelson, W. R., mfr., Lurgan, and Clarence street, Belfast
 Nicholl, Parker, & Co., flax mchts., Donegall street, Belfast
 Nicholl, W., h. l. mfr., Ballyconley, Cullybackey
 Northern Spinning and Weaving Co. (Ld.), Falls Factory, Belfast ; office--9,
 Donegall square west
 O'Brien, Geo., & Co., mchts., &c., Franklin st., Belfast
 Old Park Printing Co., Ld., Old Park. Office—Calender street
 O'Neill, H., h. l. mfr., Moy
 O'Neill, J. B., h. l. mfr., Donaghmore
 O'Neill, John, & Co., h. l. mfr., Londonderry
 Orr, Joseph, h. l. mfr., &c., Loughgall
 Orr & Sons, mfrs., Strangmore, Dungannon
 Oulton, John, & Co., flax and tow commission merchants, 37, Donegall street,
 Belfast
 Patterson, D., h. l. mfr., Rasharkin, Ballymoney
 Patterson, R. Lloyd, & Co., flaxseed and flax mchts., 22, Corporation street,
 Belfast
 Patterson, White, & Co., linen yarn merchants, 22, Corporation street, Belfast,
 and Lurgan
 Paul, Wm., mfr., Cookstown
 Pauley & Sands, h. l. mfrs. and mchts., James st. south, Belfast, and Porta-
 down
 Perry, Miss, shirt mfr., Strabane
 Philipp & Co., l. mchts., Linenhall street, Belfast
 Pike, Jonathan, & Son, manufacturers, bleachers, and finishers of linens, lawns,
 handkerchiefs, &c., also finishers of brown goods, brown dress linens and
 unions. Postal address—Dungannon, Co. Tyrone. Telegraph address
 —Coalisland only. Agents in Manchester—S. Daniel & Sons,
 Pim Bros. & Co., linen yarn and linen merchants, and commission agents,
 Upper Queen street, Belfast
 Plunkett, F., & Son, flax mchts., Corporation street, Belfast
 Portadown Linen Co., mfrs., Portadown, and Upper Queen street, Belfast
 Preston, John, & Co., linen yarn, flax and flaxseed merchants, and agents,
 20, Calender street, Belfast
 Preston, Smyth, & Co., linen manufacturers, bleachers, dyers, and finishers,
 Donegall square south, Belfast
 Rafter, W. P., flax com. mcht., &c., Wellington place, Belfast
 Reade, Clarke, & Co., linen, yarn, and flax commission merchants, 62, Upper
 Queen street, Belfast
 Reid & M'Ilveen, linens, lawns, cambric, and linen handkerchief manufacturers,
 17, Linenhall street, Belfast, and Portadown
 Reilly, Edward, flax mcht., Waring street, Belfast
 Reynolds, Archibald, flax merchant—agent for A. Ellerman, Rotterdam—
 Rosemary street, Belfast

- Richardson, Bros., & Co., linen yarn, linen, flax, and flaxseed merchants and commission agents, 30, Donegall place, Belfast
- Richardson & Co., blrs., Lambeg, Lisburn
- Richardson, Grubb, & Co., l. y. mchts., Donegall square south, Belfast
- Richardson & Niven, p. l. mfrs., Lambeg Factory, Lisburn
- Richardson, J. N., Sons, & Owden, (Limited), linen manufacturers and bleachers of all classes of Irish linens, sheetings, table damasks, diaper, linen and cambric handkerchiefs, dowlas, &c. Warehouse—1 & 3, Donegall square north, Belfast. Manufactory at Lurgan. Bleachworks at Lisburn. London warehouse at 36, Bread street. New York warehouse, at 62, White street
- Roan Spinning Company, spinners, Coalisland, Dungannon
- Robb, Hamilton, h. l. mfr., Portadown
- Ross, John, h. l. mfr. finisher, Kells, Ballymena
- Ross, John, & Co., h. l. mfrs., Lurgan
- Ross, William & Co., flax and tow spinners, Clonard Mill, Belfast
- Savage, John, h. l. mfr., Point
- Savage, Sir John, flax mcht. and spinner, Victoria street, Belfast
- Sayers, Andrew, h. l. mfr., Cloughmills
- Sefton, J. R., & Co., mfrs. and mchts., Adelaide place, Belfast
- Shaw, Edward, & Co., spinners, linen yarn, and linen merchants, Victoria street, Belfast
- Shaw, Joseph, spinner, Celbridge
- Shaw, William, & Co., spinners, Cork, and Donegall square south, Belfast
- Shillington Bros., linen and handkerchief manufacturers, 1, Adelaide place, Belfast. Manufactory, Craigvilla, Lurgan.
- Shillington, J. J., & Co., l. y. mchts., &c., Broadway, Belfast
- Sinclair, S. & Co., mchts., Franklin street, Belfast
- Sinton, Thomas, spinner and p. l. mfr., Tandragee
- Sloan, Black, & Co., mchts., Upper Queen street, Belfast
- Sloan, J. & Sons, finishers, &c., Cookstown
- Smithfield Flax Spinning and Weaving Co. (Ld.), spinners and p. l. mfrs., Smithfield, Belfast
- Smith, J. & T., f.seed mchts., Tomb street, Belfast
- Smyth, Gilmer, & Co., bleachers, &c., Ballymena
- Smyth, John A., & Co., f.seed and flax mchts., Londonderry
- Smyth, J., h. l. mfr., Clady, Co. Derry
- Smyth, Robert, h. l. mfr., Broughshane
- Smyth, Robert, spinner, Emyvale
- Smyth, Thos., h. l. mfr., Hazelview, Rasharkin
- Smyth, Wm., & Co., linen manufacturers, bleachers, and merchants, Milltown, Banbridge, and 2, Donegall square west, Belfast. 5a, Lawrence lane, London, and 23, Brown street, Manchester
- Spamont Spinning Co., spinners, Spamont, Castlederg
- Springfield Bleaching Co., Donegall square west, Belfast
- Sprott, Wm., & Co., linen, sheeting, cambric handkerchief and shirt front manufacturers, and bleachers, Dromore, Co. Down. London warehouse—26, Aldermanbury, E.C. Glasgow warehouse—77, Queen street
- Stevenson & Clarke, p. l. mfrs., Coalisland, Dungannon
- Stevenson & Douglass, flax dressers, flax and tow merchants, dressed flax of every description kept in stock or made to order; sorts suitable for sail-cloth yarns, threads, &c., always in stock, Dungannon, Co. Tyrone
- Stevenson, Douglass, & Co., linen manufacturers by power, bleachers, dyers, and finishers, Moygashel Mills, Dungannon
- Stewart, A. T., & Co., linen merchants, &c., Wellington place, Belfast
- Stewart, John, h. l. mfr., Clintagh, Coleraine

- Stewart, R. & W., & Co., mfrs., &c., Donegall street, Belfast
 Stewart, Robert, & Sons, spinners, &c., Lisburn
 Stewart, S., & Co., linen, and linen drill manufacturers, 103, Donegall street, Belfast
 Stewart, Wm., & Sons, mfrs. and mchts., &c., Bedford street, Belfast, and Lurgan
 St. Mary's Flax Spinning Company (late Gradwell, Chadwick, & Co.) flax spinners and linen manufacturers, Drogheda
 Suffolk Linen Co., finishers, &c., Dunmurry
 Taylor, James, & Sons, spinners, Carrickfergus
 Thompson, James, & Sons, l. mchts., &c., Havelock street, Ormeau road, Belfast
 Thompson, Joseph, h. l. mfr., Ballymena
 Thompson, Robt., Son, & Co., l. mchts, &c., 11, Donegall square south, Belfast
 Thompson, Wm., & Co., p. l. mfrs., Lagan Factory, Lisburn
 Thompson, W. G., flax mcht. and mfr., Coagh, Money more
 Tillie & Henderson, shirt mfrs., Londonderry
 Todd, M'Call & Co., lin. mchts., &c., Linenhall street, Belfast
 Trimble, James, flax mcht., Strabane
 Turtle, William L., h. l. mfr., Aghalee
 Ulster Damask and Linen Co., mfrs. and mchts, &c., Linen Hall, Belfast
 Ulster Spinning Co. (Ld.), spinners and p. l. mfrs., Bath place, Falls road, and Linfield, Belfast
 Uprichards, J. T. & H., bleachers, Springvale and Millbank, Gilford
 Vallely, J. L., linen manufacturer, &c., 4, Glengall place, Belfast
 Vance, Gilbert, l. y. mcht., power and hand loom linen and cotton manufacturer, Donegall street and York lane mills, Belfast
 Wallace & Magill, dyers, &c., Kells, Ballymena
 Wallis & Pollock, flax spinners and merchants, Cork
 Walker, George, spinner, Newtownards
 Walker, William, & Co., manufacturers, by hand and power-loom, of linens, sheetings, cambric and linen handkerchiefs, &c., Banbridge
 Wasson, Samuel, h. l. mfr., Ballymena
 Watson, Armstrong, & Co., p. l. mfrs. and mchts., Portadown and Donegall square west, Belfast
 Watson R., & Sons, mfrs., Lurgan, and Amelia Street, Belfast
 Watson, Valentine & Co., p. l. mfrs., mchts., &c., Amelia street, Belfast
 Watson, W. K., l. mcht., Franklin street, Belfast
 Waugh, Wm., & Co., mfrs., &c., Banbridge
 Webb Brothers, manufacturers of plain linens, Randalstown. Agencies—Belfast, Manchester, and London
 Weir, A. C., & Co., spinners, Dunmurry
 Weir, James, h. l. mfr., Ahoghill
 Welch, Margetson, & Co., l. mchts., Londonderry
 Whearty, John, & Co., mfrs., Duleek, near Drogheda
 Whiteabbey Bleaching Co., bleachers and linen merchants, Whiteabbey: office, Clarence street, Belfast
 Whiteabbey Spinning Co. (Ld.), spinners and p. l. mfrs., Whiteabbey, Belfast
 Whitehouse Spinning Co., spinners and p. l. mfrs., Whitehouse, Belfast
 Whiteside, Mrs., h. l. mfr., Prockless, Randalstown
 Whitewell Printing Co., printers and finishers, Whitewell
 Wiggelsworth, A., & Co., lin. mchts., James street south, Belfast
 Wilkinson & Turtle, linen collar and cuff manufacturers, 1, Alfred street, Belfast
 Williamson, J., flax mcht., 28, Grattan street, Belfast

Wilson, Abraham, spinner, Newry
Wilson Bros., flax and l. y. mchts., North street, Belfast
Wilson, Irvine & Co., manufacturers, Portadown
Wilson, John, flax mcht., Newry
Wolfhill Spinning Company, flax spinners, Wolfhill Mill, Ligoniel, Belfast
Woods, C., h. l. mfr., Moygashel, Dungannon
Woods, John, flax mcht., Newry
Wood, John, lin. yarn, and com. mcht., Donegall square north, Belfast
Woodlock, Duke, & Co., mfrs., Lurgan
Workman, J. & R., mfrs., &c., Bedford street, Belfast
Workman, W. S., mchts., Bedford street, Belfast
Workman, T. & G. A., mfrs., Bedford street, Belfast
Wylie, Samuel, h. l. mfr., Ballymena
Wynne, J., blr. and fin., Ballyards, Armagh
Wynne, Thos., & Co., blrs., mchts., &c., Lislea, Armagh
York Street Flax Spinning Co. (Limited), flax spinners, and linen manufacturers, and bleachers, Henry street, Belfast. Branch Houses—New York, 154, Church street; Paris, 38, Rue des Jeuneurs. Agencies—London, 2, Russia Row, Milk street, E.C. Manchester, 12, Piccadilly
Young, J. & R., mfrs., blrs., and mchts., Ballymena, and Donegall square north, Belfast

CONTINENTAL FIRMS.

BELGIUM.

JANSSENS, FRERES, COURTRAI, BELGIUM.—Linen Manufacturers, Linen Yarn Merchants, and Flax Commission Merchants. Agents for Brookfield Linen Co. (Limited), BELFAST; Messrs. Kay & Co., Pendleton Flax Mills, MANCHESTER, and Messrs. John Birley & Sons, KIRKHAM, Lancashire.

FRANCE.

TH. BOITTIAUX, LILLE, RUE DU MOLINEL, 57 & 61. Flax and Tow Merchant. Irish Agent—James Beattie, Linen Hall, Belfast.

CURTIS & CIE, LILLE.—Agents de Maisons Russes, pour Lins Chanvres et Graines. Négociants Commissionnaires en Fils de Lin et Toiles de Jute.

GALLAND RUSKONE & FILS, CAMBRAI (NORD.)—Importation et Exportation. Fils de Lin et D'Etoupes, Français, Belges et Anglais. Spécialité de Fils Fins pour Nouveauté Toile et Batiste.

L. LEROY-CREPEAUX, LILLE.—Flax Merchant. Store in COURTRAI, Rue Neuve 4.

AUGTE. LONGHAYE, LILLE—Négociant en Lins, Fils, Graines; Agent de Maisons Russes.

GERMANY.

WEBERVEREIN SELBSTHULFE ZU HEEPEN, EINGETRAGENE GENOSSENSCHAFT, IN BIELEFELD,— Fabrikation durch Handweberei von Bielefelder rohen und gebleichten Leinen, geklärten und ungeklärten Creas, Drellen, und Taschentuchern in allen Breiten und Groessen.

S. MEYER & CO., A BIELEFELD.—Manufacture de devants de chemises cousus, brodés à la main et à la mécanique, faux cols et manchettes pour hommes et dames; festons et entre deux en toile et en cambrique.

PREUSS ET BRAUNS, BIELEFELD (PREUSSEN.)—Fabrikanten von Leinen, fertigen Hemden und Hemden Einsätzen (Devants de chemises).

MORITZ ROSENBLUM, HAMBURG, WILHELMINENSTR 38.—Handlung in deutschen Flächsen, feinen und mittel Heeden.

WILH. FREMBLING, BIELEFELD.—Maschinen Werkstatt für Herstellung und Reparatur von Spinnerei Maschinen.

A. W. KISKER, BIELEFELD.—Hoflieferant Sr. Majestät des Deutschen Kaisers und Königs. Fabrik von Drell-Jacquard,-und Damast-Tischzeugen und Leinen.

- ROMMEI, NAGEL & CO., CÖLN.—Mechanische Weberei, Specialität Segeltuch Drell und Wagendecken.
- CARL HEIDSIECK, BIELEFELD.—Fabrikant von Tischzeugen und Handtüchern in Drell, Jacquard und Damast, Leinen, Taschentüchern, Hemdeneinsätzen und anderen Wäscheartikeln.
- S. A. STERN, SENR., BIELEFELD.—Leinen, Damast, Drell, und Einsatz, Fabrik.
- OERTMANN & BAUMHÖFENER, BIELEFELD.—Leinenfabrik und Wäsche Specialität : Hemdeneinsätze in allen Genres.
- GOTTLIEB BRACKSIECK, BIELEFELD.—Fabrik von Leinen, Tischzeugen und Wäsche.
- JULIUS WEISS, BIELEFELD.—Fabrikation von Leinen, Einsätzen und fertigen Hemden.
- HEINRICH LANDWEHR, CIVIL INGENIEUR, BIELEFELD.—Specialität ; Anlage von Flachsspinnereien, Webereien, Bleichen und Appretur Anstalten.
- GUST HERM SCHMIDT, BIELEFELD.—Fabrikation von Bielefelder Leinen, Taschentüchern und Hemden, Einsätzen.

HOLLAND.

- B. BAKKER, BZN., ROTTERDAM (LATE PARTNER OF PAUL GRANSBERG & Co.) Formerly Flax Buyer of Messrs. Robert Twiss & Sons. Telegraph Address—Bakker, Flax Merchant, ROTTERDAM.
- PAUL GRANSBERG & CO., Flax Merchants, ROTTERDAM. Also branch house in FRIESLAND.
- P. J. LUCARDIE & SONS, Flax, Tow and Flaxseed, ROTTERDAM (Holland), LEEUWARDEN, DOKKUM, (FRIESLAND.) Agent in BELFAST—James Beattie.
- ARTHUR MAINGAY & CO., FLAX MERCHANTS, ROTTERDAM AND LEEUWARDEN.—Agents in BELFAST—Messrs. John Oulton & Co., Donegall Street.
- E. & S. & C. ST. MARTIN & CO., Flax Tow and Flaxseed Merchants, ROTTERDAM—Branch houses at Leeuwarden and Dokkum, (FRIESLAND.)
- C. E. MOLL & CO., ROTTERDAM, Flax and Flaxseed and General Commission Merchants. Agents in BELFAST—for Flaxseed—Messrs. M. J. Fiddes & Co.; for Flax—Messrs. Reade, Clarke, & Co.
- L. AUG. MULLER & CO., ANTWERP, Agents and Commissioners for Russian and Belgian Flax.
- JAN VAN WAGENINGE & ZOON, Flax, Flaxseed, and Hemp Merchants, ZALMHAVEN, ROTTERDAM.

Advertisements.

The First Prize Awarded for FLAX, TOW & JUTE CARD CLOTHING and BELTING, at the YORKSHIRE EXHIBITION, 1875, was given to



SOLE MAKERS OF
IRON & BRASS FACED CARD CLOTHING,
Which from its cheapness and greater durability has for a number of years been used by many of the largest consumers in preference to "Leather" Filleting.

SOLE MAKERS

of a Special

WATERPROOF BELT

extensively used for

WET SPINNING, &c.



Every variety of
IRON & STEEL
CARD TEETH,
HACKLING SHEETS,
STRAPBUTTS, &c.

ESTABLISHED 1780.

MANUFACTURERS OF EVERY DESCRIPTION OF

WOOD AND LEATHER
CARD CLOTHING,
(Set with Needle, Diamond, Sectoral or other Points.)
FOR CARDING FLAX, TOW, JUTE, &c.

Running Board Leathers, and other Loom Furnishings.

All kinds of Silk Machine Cards with Steel Teeth.

SUPERIOR SINGLE, DOUBLE AND TREBLE
LEATHER

DRIVING BANDS,

All BELTS stretched, and made any width to 48 inches,
stitched with Lace, Wire, or Hemp, as required.

To insure prompt execution of orders, a large stock of the above
always on hand. Samples and List of Prices on application.

PLEASE NOTE ADDRESS,
LIVERSEDGE, YORKSHIRE, ENGLAND.

ESTABLISHED OVER 80 YEARS.

VIENNA EXHIBITION MEDAL, 1873—First Prize for Card Clothing Awarded for Excellence of Manufacture. PARIS, 1st Prize, SILVER MEDAL, 1875.— Do. do.

MANUFACTURERS OF EVERY DESCRIPTION OF
CARD CLOTHING FOR FLAX, TOW, & JUTE CARDING MACHINERY.

THOMAS FLEMING & SON,

WEST GROVE MILL,
HALIFAX, ENGLAND,

CARD CLOTHING IN LEATHER, WOOD, CLOTH, &c.—BRASS & IRON FACED,
&c.—for FLAX, TOW, JUTE, SHODDY, &c.

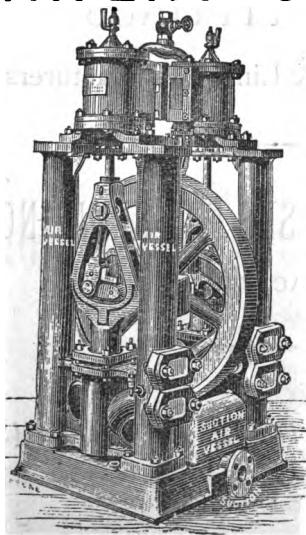
MAKERS OF SILK COMBS, SILK COMB TEETH, & ALL SORTS OF NEEDLE POINTED
CARDS FOR CARDING, COMBING, AND DRESSING SILK.

Patent Diamond Point Needle Pointed Sectoral Knife Wire, Flat
Wire, Oval Wire, &c., for Takers in, for Cotton and
Woollen Carding Engines.

NEEDLE POINT TEETH MAKERS.
MAIN LEATHER DRIVING BANDS

Single, Double, and Treble, any width up to 48-in., and any strength. A trial
solicited for these Heavy Main Driving Bands, made from the Best English Butt Leather.

PATENT STEAM PUMPS.



Awarded Special Prize Medal at the
Machinery Exhibition, Manchester.

The simplest and most durable Pump
for Boiler Feeding, and Fire Engine
purposes, at Mills, Chemical, Bleach, and
Dye Works, Breweries, Collieries, Gas and
Water Works, etc., etc.

Makers of Horizontal and Vertical Steam
Engines.

PRICES AND TESTIMONIALS ON APPLICATION

HULME & LUND,

PATENTEES,

Willburn Iron Works,

WILLBURN STREET, REGENT ROAD,
SALFORD, MANCHESTER.

WHITE, CHILD, & CO.,

22, COLLEGE HILL, .

L O N D O N .

BRANCH ESTABLISHMENTS.

In FRANCE,	...	LILLE (Nord.)
„ BELGIUM,	..	COURTRAI.
„ GERMANY,	...	BIELEFELD, WESTPHALIA.

MACHINERY & FITTINGS

Of all kinds, for Flax-spinners & Linen Manufacturers.

PURE GUTTA PERCHA BOSSES FOR SPINNING

(SPECIAL MANUFACTURE.)

Child's Patent Measuring Apparatus

FOR ALL KINDS OF FABRICS,

THOMAS JENNINGS & SONS,
Albert Machine and Tool Works,
HUNSLET ROAD, LEEDS,
MACHINERY MERCHANTS,
VALUERS, AND
TOOL MAKERS, &c., &c.

MAKERS OF
WINDING, TWISTING, POLISHING,
AND
BALLING MACHINES FOR TWINES,
ALSO, OF IMPROVED SELF-ACTING POWER REELS.

DEALERS IN EVERY DESCRIPTION OF
Flax, Hemp, Tow, & Jute Machinery,

A large Stock of which (Second hand) is always on hand.

LISTS ON APPLICATION.

**Machinery promptly Repaired, and all kinds of Mill
Furnishings supplied.**

PISTONS AND AIR-PUMP BUCKETS,

FOR LAND AND MARINE ENGINES,

FITTED WITH

Mather's Patent Elastic Metal Packing,

(Of which 8,583 have been made to December, 1875),

CYLINDERS AND PUMP BARRELS

RE-BORED IN THEIR PLACES.

IMPROVED VALVES & TAPS FOR STEAM, WATER & GAS

MATHER & PLATT,

ENGINEERS AND MACHINE MAKERS TO CALICO PRINTERS,
BLEACHERS, DYERS, AND FINISHERS,

SALFORD IRON WORKS, MANCHESTER.

PRICES AND PARTICULARS ON APPLICATION.

BELTING versus GEARING.

LEATHER DRIVING BELTS

(Sampson & Co.'s Patent, without Cross Joints.)

THE Belts are made from the best English Leather, any width, length, or strength required, without cross joints, and of even thickness throughout. For large Main Driving Belts running direct from the fly-wheel of engine this Patent Belting is especially adapted, and can refer to a great number of firms who are turning from 50 to 350-h.p. (indicated) by Belts from 10 to 24 28, 30, 36, and 38 inches wide.

AWARDED SIX FIRST-CLASS PRIZE MEDALS.

For prices and all information, apply to

W. J. EDWARDS, 20, MARKET PLACE, MANCHESTER.

SCHIELE'S PATENT SILENT FANS

For Blowing and Exhausting; Drying by Hot or Cold Air; Drawing off Dust, Steam and Heat; Ventilating Mills and Rooms; Blowing Smithy Fires and Cupolas. Full List and details on application.

THE UNION ENGINEERING CO. (C. SCHIELE & Co.),

2, Clarence Buildings, Booth Street, Manchester.

C. H. HANDASYDE & CO.,

BOILER COMPOSITION MANUFACTURERS,

Oil, Iron, and Steel Merchants,

Agent—WM. R. REA, BELFAST.

DALKEITH, N.B.

PRICES ON APPLICATION.

Pinion and Cog Wheel Greases; Iron and Steel Hoops for Baling, &c.

PATENTS AND TRADEMARKS.

W. P. THOMPSON, C.E.,

6, LORD STREET, LIVERPOOL,

SOLICITOR OF BRITISH & FOREIGN PATENTS & TRADEMARKS,

Has Branch Offices or Agents for taking out and selling Patents in
LONDON, PARIS, BRUSSELS, FRANKFORT, VIENNA, TURIN, ST. PETERS-
BURGH, STOCKHOLM, WASHINGTON, MONTREAL, MELBOURNE, CALCUTTA,
and other Cities. **MANUAL OF INSTRUCTIONS GRATIS.**

DESIGNS AND TRADE MARKS REGISTERED UNDER THE NEW LAW.

NOTE.—Trademarks to be binding must be registered afresh under the Act of 1875.

Send stamp for Pamphlet "All about Trademarks."

NOTE.—Residents abroad (whether the actual inventors or otherwise) sending a full clear description of a new invention (with explanatory sketches or drawings where necessary) can have immediate protection and subsequent patent (no oath or power of attorney required) cost, £10 (50 dols. Gold or 250 francs) in advance, and £34 (170 dols. Gold or 850 francs) any time before the end of four months from date of application. Search for novelty always included. If found clearly old, the money, minus £4 (cost of search) will be returned.

HANDBOOK OF PATENT LAW,

Published by W. P. THOMPSON, C.E., 6, LORD STREET, LIVERPOOL. 1s. post free.

"THE Manual is a very valuable one, and gives evidence of having been prepared with great care, and a thorough knowledge of the subject."—*Mining Journal*.

"The pitfalls into which an unwary inventor will run a risk of stumbling are pointed out and good advice given. . . . A trustworthy guide to Patentees.—*English Mechanic*."

MR. THOMPSON frequently visits BELFAST and DUBLIN for the purpose of securing Patents. Circular, with full particulars, supplied gratis.

ESTABLISHED OVER A QUARTER OF A CENTURY.

THOMAS FIRTH,

Manufacturer of Gold & Silver Ornamental Designs

FOR

MANUFACTURERS, BLEACHERS, AND MAKERS-UP OF LINEN
AND MUSLIN GOODS,

BATH BUILDINGS, HUDDERSFIELD.

T. F. begs to say that he makes these Gold and Silver Embossed and Plain Designs by a new process of his own, by which he can produce them more expeditely, consequently cheaper, than any other house in the trade.

Manufacturer also of GOLD AND SILVER LETTERS for Manufacturers and Shipping Merchants, of Woollen, Worsted and Stuff Goods, Cassinets, Cassimeres, &c.

T. F. begs to say that, by his NEW AND IMPROVED MOVABLE-LETTER MACHINE, he is in a position at any given time to supply (in 8 or 10 different designs) any word, names of firms, &c., &c., in any language.

GOLD AND SILVER LETTERING is rapidly taking the place of the old-fashioned and slow process of Silk Lettering. The especial advantages in the use of the former are their simplicity, cheapness, beauty, and despatch, in which the Silk Lettering cannot possibly compete.

All orders with Private Trade Marks or Names Executed with the Strictest Secrecy.

Please Note the Address—

THOMAS FIRTH,

FANCY STATIONER,

BATH BUILDINGS, HUDDERSFIELD.

Council Medal, 1851. First Class Medal, Paris, 1855. Prize Medal, London, 1862. Gold Medal, Paris, 1867. For excellence of their Microscopes and cheapness of their Manufactures.

R. & J. BECK,

81, CORNHILL, LONDON, E.C.,

BEG to direct the attention of the Linen Trade to the suitability of their new

MICROSCOPE,

which possesses ample power for analysing the various Vegetable Fibres:—

FLAX, HEMP, JUTE, COTTON, &c.,

and its use will be found advantageous to Manufacturers, by assisting them in determining the component materials of

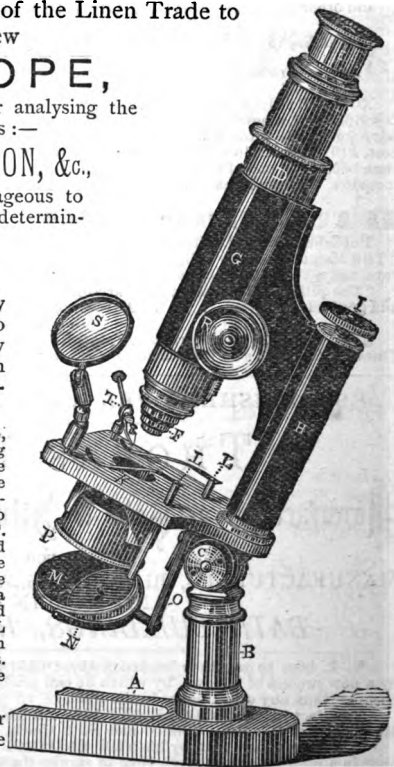
CLOTH AND YARNS.

It is simple in construction; easily adjusted; and anyone unused to Instruments of the kind can readily acquire, in a short time, skill in analysing these fibres, which severally possess distinct characteristics.

Explanation.—A, heavy horse shoe base, at bend of which is a firm pillar B, having at its top a hinge-joint C, which allows the body D to be inclined at any angle. The Body is supplied with a drawer or lengthening tube E, which must be pulled out to give the full power to the Object glass F. The Quick-focussing movement is produced by sliding the body D up and down in the tube G, and the slow motion is given by the tube H sliding over the inner stem with a spring inside, and adjusted by the milled head I. The stage K has two springs L L for holding objects. M mirror which can be adjusted to any angle to reflect the light. S condensing lens for using with opaque objects.

For an Instrument of superior POWER and FINISH like this the price has been made as low as possible.

With Two Eye Pieces and Half-inch Object Glass; Fine Adjustment; Pliers, Forceps, Glass Plate and Condensing Lens, in Mahogany Case, £6 12s 6d. With Inch or Quarter Inch Object Glass, £5 12s 6d.



AGENT IN BELFAST FOR THIS SPECIAL INSTRUMENT,

F. W. SMITH, 43, Waring Street, Belfast,

WHERE ONE CAN BE SEEN.

Contractors for ROOFING FELT to the International Exhibition of Paris, 1867.

BY HER MAJESTY'S
ROYAL LETTERS PATENT



SEVERAL
PRIZE MEDALS

D. ANDERSON & SON,

MANUFACTURERS AND ONLY PATENTEES OF THE

IMPROVED PATENT ASPHALTE ROOFING FELT,

Price Eightpence per Running Yard, or One Penny per Square Foot, making a light, clean, economical and durable Roofing, in Rolls of 25 to 35 yards, 32 inches wide.

Improved Patent Bituminous Waterproof Felt, Free from Unpleasant smell; for Lining Damp Walls, laying under Carpets, Floor-Cloths, &c. Price 8d per yard, 32 inches wide.

Improved Non-Conducting Hair Felt, for Clothing Boilers, Cylinders, Pipes, &c., which effects a saving of one-fourth in Fuel. Price, from Seven to Fifteen Pence per Sheet, according to thickness.

Improved Patent Sheathing Felt, for Ships' Bottoms, under Copper or Wood. Made in Double Sheets and in Rolls. Price Twopence and Twopence Halfpenny per sheet of 32 x 20 inches.

Asphalte Flagging, recommended for Flooring Cellars, Mills, Barns, &c. Price 10d to 5s per Square Yard.

CONTRACTORS FOR THE ERECTION OF CIRCULAR ROOFS, SHEDS, &c.

Refined COAL TAR, at 6d per Gallon; Prepared COATING MIXTURE, at 8d per Gallon; PATENT ASPHALTE COATING VARNISH, at 12s per cwt. All in Quantities to suit.

Samples and Instructions sent gratis to any part of the Town or Country on application to

D. ANDERSON & SON,
LAGAN FELT WORKS, BELFAST
AND 23 & 23½ BILLITER STREET, LONDON.

A. GOODALL & SONS

CLIFTON
BRIDGE MILL

Paris Exhibition
PRIZE MEDAL



BRIGHOUSE,
YORKSHIRE.

For Quality and
General Excellence
of Manufacture.



MANUFACTURERS OF EVERY DESCRIPTION OF

WOOD AND LEATHER CARD COVERINGS,

FOR CARDING

FLAX, TOW, JUTE, WOOL, SILK, COTTON, & SHODDY.

SOLE MAKERS OF

PATENT SECTORAL POINTED STEEL PINNED
WOOD CARDS FOR CARDING JUTE.

Silk Combs, with best tempered Steel Teeth, set in
LEATHER OR VULCANISED INDIA RUBBER,
FOR DRESSING SILK.

*ALL KINDS OF NEEDLE POINTED IRON AND
STEEL TEETH, STEEL PINS, &c.*

Double and Single Leather Driving Straps (Joints
Sewn or made with Stapples) made from Bark
Tanned Leather of Superior Quality. Endless
Leather Sheets, &c.

A. GOODALL & SONS

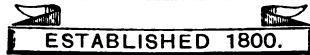
CLIFTON
BRIDGE MILL

Paris Exhibition
PRIZE MEDAL



BRIGHOUSE,
YORKSHIRE.

For Quality and
General Excellence
of Manufacture.



FABRICANTS DE TOUTES SORTES DE

GARNITURES DE CARDES

EN

BOIS ET EN CUIR

POUR LE CARDAGE DES ETOUPES DE LIN ET DE

CHANVRE, DE JUTE, LA LAINE, DE LA
SOIE, DU COTON, ET DE LA LAINE FOURBANDRÉE.

CARTES "SECTEURS" GARNI EN BOIS BRÉVETÉES

POUR LE PEIGNAGE DE JUTE.

Peignes à soie, à dents d'acier bien trempé, et montés sur cuir ou sur caoutchouc survulcanisé, pour l'apprêt de la Soie.

Toute espèce de dents habillées en fer et en acier. Epingles d'acier, &c. Courroies, simples et doubles, en cuir tannée de qualité supérieure. Courroies sans fin, &c.

FABRIKANTEN VON ALLEN ARTEN

HOLZ UND LEDER EINGEFASSTEN
KRÄTZEN-VERKLEIDUNGEN

Für

FLACHS, WERG, JUTE, SEIDE, WOLLE, BAUMWOLLE
UND SHODDY.

Patentirten gespitzen Holz-Krätzsectoren zum Jute-Krämpeln.

Gezahnten Seidenkämmen, aus dem besten gehärteten Stahl verfertigt, und entweder in Leder oder hornisirten Kautschuk eingesetzt.

Allen Arten fein-gespitzen Eisen-und-Stahl-Krätzen. Stählernen Nadeln, &c.

Einfachen und doppelten Riemen, aus vorzüglich gegerbten Leder. Endlose Gurten, w s. w.

BOOKS.

WILLIAM HENRY GREER,

43, DONEGALL PLACE, BELFAST,

RESPECTFULLY solicits the attention of Merchants to his stock of Books adapted to the specialties of the Linen trade. Books not in Stock promptly procured (if obtainable) to order.

THE FOLLOWING IS A SELECTION FROM HIS STOCK:—

The Linen and Linen Yarn Trades Ready Reckoner, by Jas. B. White	£1 0 0
The Weight Calculator; showing at one reference the exact value of any weight from 1 lb. to 15 tons, from 1d. to 168 shillings per cwt., by Henry Harben	1 10 0
Laurie's Interest Tables	1 1 0
Wood's Discount Tables	0 1 0
Page's Fractional Calculator	0 4 0
Practical Book-keeping, adapted to commercial and judicial accounting, by F. Hayne Carter	0 7 6
Calvert's Pocket Wages Table, 56½ hours	0 0 3
Handbook of Dyeing and Calico Printing, by W. Crookes, F.R.S.	2 2 0
Manual of Colours and Dye Wares, by J. W. Slater	0 7 6
The Dyers' Handbook, by F. J. Bird	0 5 0
Workshop Receipts for manufacturers and others, by E. Spon	0 5 0
The Textile Colourist; a journal of bleaching, printing, dyeing, etc., by Charles O'Neil, F.C.S., monthly	0 2 6
Select Method in Chemical Analysis, by Wm. Crookes, F.R.S.	0 12 6
The Art of Weaving, by John Watson	0 12 6
The Factory and Workshops Act, by G. J. Notcutt	0 9 0
The Law of Private Trading Partnership, by J. W. Smith, LL.D.	0 1 0
The Law of Joint-Stock Companies, by J. W. Smith, LL.D.	0 1 0
Elements of Chemistry, by Wm. Allen Miller, 3 vols.	3 0 0
Dictionary of Chemistry, and the allied branches of other sciences, by Henry Watts, F.C.S., 6 vols. and 2 supplements to 1875	12 18 6
Ure's Dictionary of Arts and Manufactures, enlarged, by R. Hun, F.R.S., 3 vols.	5 5 0
Ireland and her staple Manufactures: Sketch of the history and progress of the Linen and Cotton Trades	0 7 6
Flax and its Products, by W. Charley	0 5 0

W. H. GREER, à l'honneur d'annoncer aux Manufacturiers et aux négociants en toile à l'étranger qu'il tient en vente les ouvrages ci-dessus nommés, et qu'il s'empresse de les envoyer, au reçu d'un Bon sur la Poste, soit directement ou inclus dans leurs balles de marchandises selon l'ordre qu'il recevra.

Imperial Fire Insurance Company,

1, OLD BROAD STREET, LONDON.

INSTITUTED 1803.

MODERATE RATES. UNDOUBTED SECURITY.
PROMPT AND LIBERAL SETTLEMENT OF CLAIMS.

DISTRICT AGENTS :

JOHN PIM & SON,

18, TOMB STREET, BELFAST.

AGENTS :

WILLIAM MONTGOMERY, 103, DONEGALL STREET, BELFAST.

WILLIAM EMERSON, 13, DONEGALL QUAY, BELFAST.

BEG to call the attention of Householders and all Owners of Property to the Protection afforded by this Institution against the calamitous ravages of Fire, which in a short time may lay waste the fruits of a whole life of Industry.

**Special attention is given to insurances on Flax Mills,
Flax, Linen, and Yarn Warehouses.**

The experience of many years has made manifest to the public the promptitude and liberality with which all losses have been adjusted and paid by the Imperial Fire Office. The security afforded to the Public comprises that of a large and wealthy proprietary, in addition to a Subscribed Capital of

ONE MILLION SIX HUNDRED THOUSAND POUNDS.

Steam Thrashing Machines allowed on Farms without extra charge.

Indemnity for Loss or Damage to buildings, or Property contained therein, caused by *explosion of gas* in such buildings.

Rates and particulars of Insurance may be had as above, where any order or instructions that may be addressed will meet with immediate attention.

All Policies now issued free of duty.

ROYAL INSURANCE COMPANY.

HEAD OFFICES:

ROYAL INSURANCE BUILDINGS, LIVERPOOL, AND
LOMBARD STREET, LONDON.

Extracts from the Report for the Year, 1874.

FIRE DEPARTMENT.

Fire Premiums for the Year	-	£774,631 10 2
Losses	-	402,191 18 11

LIFE DEPARTMENT.

Income from Premiums, after deducting re-assurances	£240,635 19 1
DECLARATION OF BONUS for the Quinquennium ending 31st Dec., 1874;	
£1 10s per cent. per annum on Sum assured,	
Upon all policies entitled to participate.	

A valuation of the liabilities has been obtained from an independent actuary, in addition to the ordinary valuation by the Officers of the Company. The two valuations are nearly identical in their results, but the figures of Mr. Baden, the consulting Actuary, have in every instance been adopted.

The Life Profit for the Five Years was - £273,607

FUNDS.

After providing for payment of the Dividend and Bonuses, the funds of the Company will stand as follows:—

Capital Paid-up	-	-	-	£289,545 0 0
Fire Fund	-	-	-	354,637 10 0
Reserve and Profit and Loss	-	-	-	459,981 0 4
Life Funds	-	-	-	1,853,011 2 0

£2,957,174 12 4

The valuation above referred to was made by the Tables of the Institute of Actuaries (HM)

EXTRACT FROM AUDITOR'S REPORT.

"We have examined and counted every Security, and have found all correct and in perfect order, and that the present aggregate market value thereof is in excess of the amounts in the said Balance Sheets."

JOHN H. McLAREN, *Manager.*

BRANCH OFFICE FOR IRELAND

ROYAL INSURANCE BUILDINGS, 45 DAME STREET, DUBLIN.

LOCAL BOARD.

WILLIAM MALCOMSON, Esq., Portlaw, Co. Waterford.
OHAS. E. MARTIN, Esq. (Messrs. T. & C. Martin) North Wall, & 12, Fitzwilliam Pl. Dublin
THOMAS PIM, Jun., Esq., 22, William Street, Dublin; and Windsor House, Monkstown.
THOMAS VANCE, Esq., Lower Bridge Street, Dublin; and Blackrock House, Blackrock.

BANKERS.

ULSTER BANKING COMPANY.

NATIONAL BANK.

SOLICITORS.

Messrs. WILLIAM FINDLATER & Co., 35, Upper Ormond Quay.

LOCAL MANAGERS.

Messrs. SHELDS & STRIDE.

AGENTS AT BELFAST.

F. PLUNKETT & SON,
8, Corporation St.

CHARLEY & MALCOLM,
Donegall Quay.

SAMUEL BLACK.
Town Hall.

National Assurance Company of Ireland.

HEAD OFFICE: 3, COLLEGE GREEN, DUBLIN.

INCORPORATED BY ROYAL CHARTER. ESTABLISHED 1822.

CAPITAL—ONE MILLION STERLING.

Paid-up Capital,	£100,000
Uncalled Capital,	900,000
Subscribed Capital,	£1,000,000
Accumulated Reserves, exclusive of Capital.	£262,901

By the last Returns presented to Parliament, in March, 1874, it appeared that the accumulated "Life Funds" of the National Assurance Company of Ireland amounted to upwards of 35 per cent. of the total sums assured.

Independent of the "Life Funds" the Company has other large reserves which afford a security almost without parallel.

AGENT IN BELFAST:

F. W. SMITH, 43, Waring Street.

THE BELFAST LINEN TRADE CIRCULAR,

DRAWN UP BY A COMMITTEE OF THE LINEN TRADE,

APPOINTED UNDER THE SANCTION OF

THE BELFAST CHAMBER OF COMMERCE,

Published every MONDAY EVENING at the Offices,

43, WARING STREET, BELFAST.

		<i>Per Annum</i>
Subscription for Great Britain or Ireland,	- -	£1 2 6
Foreign,	- - - - -	1 5 0

F. W. SMITH, Secretary.

DER LEINEN INDUSTRIELLE

Wöchentlich erscheinendes Organ des Deutschen und Oesterreichischen
Leinen Industrie Vereins
bringt regelmässige und ausführliche Marktberichte aus allen bedeutenderen
Productionsorten

DEUTSCHLANDS, OESTERREICHS,
ENGLANDS, SCHOTTLANDS & IRLANDS,
RUSSLANDS, HOLLANDS, BELGIENS, FRANKREICHS UND ITALIENS,
über FLACHS, WERG, HANF, JUTE, GARN und LEINEN und in einem
zweiten Blatte Abhandlungen über Flachsbaum, Flachsbereitung und alle die
Garn, und Leinen Industrie betreffenden technischen und wirthschaftlichen
Fragen, neue Erfindungen, etc.

Gegen Zahlung von 30 Mark pro Jahr wird das Blatt jeden Sonnabend
franco zugesandt und zugleich das Recht erworben Ankündigungen in demselben
Kostenfrei zu erlassen so wie an den Versammlungen des Vereins Theil zu
nehmen.

Anmeldungen sind zu richten an die Redaction des LEINEN INDUS-
TRIELLEN zu BIELEFELD (Westfalen.)

SPECIMEN GRATIS ON RECEIPT OF BUSINESS CARD..

The Textile Manufacturer

A Trade Journal for Millowners, Machinists, Dyers, Bleachers, &c.

THIS Journal embraces every trade of which Cotton, Wool, Silk, Flax, Hemp, Jute, or any other fibrous material forms the basis, and it is the only publication in the United Kingdom devoted to the same industries. THE TEXTILE MANUFACTURER deals with the Raw Materials, with the Machinery, Apparatus, Tools, and Processes (Illustrated) employed in their conversion; with Mill Architecture (occasionally Illustrated) with the Manufactured Goods, and with Chemicals, Dyeing, and Dyestuffs. The statistics relating to Imports and Exports, as also the Prices Current of each branch, are carefully collected, tabulated and reviewed, and Monthly Lists of British and Foreign Patents, Bankruptcies, Liquidations, Bills of Sale, &c., are also given, together with a mass of other reliable information of great value: in fact, no subject of interest to those engaged in any department of Textile Manufacture is neglected. The advertisements are strictly confined to announcements of Machinery, Steam Apparatus, Plant, and other material used by Manufacturers, Dyers, Bleachers, Calico Printers, &c.

CHIEF OFFICE—15, MARKET STREET, MANCHESTER.

LONDON OFFICE—138, FLEET STREET.

Published on the 15th of each month. Subscriptions 10s. per year, payable in advance, commencing from any date, Post free to every country in the world. Single Copies, 1s. each.

Textile Manufacturers being greater users of Steam Power and Machinery than any other class, the advertisements are strictly confined to announcements of Machinery, Steam Apparatus, Plant, and other materials used in the Cotton, Woollen, Worsted, Silk, Linen and Jute Trades, and in Dyeing, Bleaching, and Calico Printing.

By the adoption of this rule it is intended that these Advertisements shall form quite an Illustrated Catalogue of Plant connected with the Trades, thus becoming a Guide to Manufacturers before purchasing new appliances.

All communications must be addressed and remittances made payable to W. T. Emmott 15, Market Street, Manchester.

WILLIAM W. CLELAND,
MANUFACTURING AND EXPORT STATIONER,
Steam-Power Printer, Lithographer, Illuminator, Draughtsman,
Bookbinder and Account-Book Maker,
 20, GREAT VICTORIA STREET, OPPOSITE ULSTER RAILWAY STATION,
BELFAST.

SAMPLE CASES FOR THE LINEN TRADE—A SPECIAL FEATURE,
 LAPPING PAPERS OF EVERY DESCRIPTION,
 PRICE LISTS, CLOTH AND YARN TICKETS, &c., &c.

LEROY'S IMPROVED PATENT NON-CONDUCTING COM-
 POSITION for COATING BOILERS, STEAM PIPES, and other
 highly heated surfaces.

Much superior to Felt, or any other composition as regards Economy, Lightness, Dura-
 bility, Adhesiveness, and Effectiveness, to prevent the radiation of Heat, save Fuel, increase
 the power of Steam, and keep the Stoke Hole and Engine Room cool; it will at once show
 a Leak; it cannot catch or communicate fire. Can be seen in places where it has been on
 for Eight years.

USED IN H.M. GOVERNMENT IN THE DOCKYARDS, &c., &c.

Agents for E. VOISIN'S FLAMELESS CUPOLA FURNACE, by which Iron is cast with
 a maximum of 180 lbs. of Coke to the ton of iron put into the furnace, or no charge is
 made for Royalty, (General Agents—JULES MAGNY & CO., 1 Langham-pl., London, W.)

Hundreds of references and testimonials, and all information at

LEROY & CO., Sole Manufacturers, 12, Gray Street, near Philpot Street Road, Lcn-
 don, E., and 2, Great Clowes Street, Lower Broughton, Manchester.



WRITING PAPER AND ENVELOPES,
 PRODUCED FROM PURE- UNWORN LINEN CUTTINGS.

"A peculiarly substantial and elegant description of stationery, on which it is an
 absolute luxury to write,"—*Daily Telegraph.*

"Precisely the kind of surface which is so agreeable to the ready or unready writer."—
Morning Post.

WATERMARK (as above) and "MARCUS WARD AND CO." in every
 octavo sheet. Watermark in the Second Quality, "PURE FLAX."
 Sample Packet of all Varieties, 6d. post free. Wholesale of the Manufacturers,

MARCUS WARD & CO.,
 LONDON; & ROYAL ULSTER WORKS, BELFAST

FRANCIS RITCHIE & SONS,

BELFAST.

MANUFACTURERS OF

Vitriolized Bone Compound, suitable for all Crops.

Potato Manure, for raising a large and healthy Crop.

Grass Manure, for giving a large Crop of Hay and improving Pasture Land.

Grain Manure, for increasing Straw and Grain.

Bone Flour, containing all the elements of the Plant.

Bone Meal, Guaranteed made from Pure Bones.

Crushed Bones, of any degree of Fineness.

Angular, or Bow and String Binder Roofs,

A SPECIAL DESIGN,

Applicable to all cases where great Economy of Cost, Clear Wide Space, without Centre Supports from below, are required.

ROOFING FELT.—A Light and Durable Covering for Roofs.

BROWN SHEATHING FELT.—*For Ships' use.*

BLACK SHEATHING FELT.—For Ships' use.

INODOROUS FELT.—*For Lining Damp Walls.*

SARKING FELT.—For Putting under Slates.

ASPHALTE.—*For Flooring Stores, Warehouses, Granaries, &c.*

DRY HAIR FELT.—For Covering Steam Boilers & Steam Pipes.

BROWN AND BLACK MINERAL PAINTS,

FOR OUTSIDE WORK.

Felt Varnish.—For Felt Roofs, &c.

FIRE LIGHTS.—For Kindling and Reviving Fires.

PROSPECTUSES, WITH PRICES, FREE BY POST.

	acres	Per acre Cost
1856	106,311	$4\frac{1}{2}$
1857	97,721	$4\frac{1}{2}$
1858	91,646	$4\frac{1}{2}$
1859	136,282	$4\frac{1}{2}$
1860	128,595	$4\frac{1}{2}$
1861	<u>147,958</u>	$4\frac{1}{4}$
1862	150,070	4
1863	214,092	6
1864	307,942	5
1865	<u>251,534</u>	
1866 <small>712 cut 65</small>	263,507	
1867	253,257	
1868	206,483	3 alt

~~502,481~~
~~125,620~~
~~4 1/4~~
~~502,480~~
~~314,05~~
~~53,3885~~
~~640,6620~~
~~59795120~~

~~917638~~
~~229409~~
~~1752908~~
~~08~~

Acres Per

1869		229.1
1870	<i>yield</i>	194.8
1871	<i>sub</i>	156.6
1872		121.99
1873	<i>inferior</i>	129.29
1874	⁺	106.9
1875		101.2

* Decrease in acreage 1770
but yield only 5% less

This book should be returned to the Library on or before the last stamped below.

A fine of five cents a day is incurred by retaining it beyond the specified time.

Please return promptly.

4489527
MAY 20 1974 H

Econ 7725.16

The Irish linen trade hand-book and
Widener Library 006617259



3 2044 082 133 497